Self Diagnosis
Supported model

# SERVICE MANUAL AG3E CHASSIS

| MODEL | COMMANDER | DEST. | CHASSIS NO. | MODEL | COMMANDER | DEST. | CHASSIS NO. |
|---|---|---|---|---|---|---|---|
| KV-DR29M63 | RM-991 | Thailand | SCC-U82A-A | | | | |

TRINITRON ® COLOR TV

SONY ®

## SPECIFICATIONS

| | | | Note |
|---|---|---|---|
| **Power requirements** | 110-240V AC, 50/60 Hz | | KV-DR29M39/DR29M69/DR29M89 |
| | 220-240V AC, 50/60 Hz | | KV-DR29M63 |
| **Power consumption (W)** | Indicated on the rear of the TV | | |
| **Television system** | B/G, I, D/K, M | | |
| **Color system** | PAL, PAL 60, SECAM, NTSC3.58, NTSC4.43 | | |
| **Stereo/Bilingual system** | NICAM Stereo/Bilingual B/G, I;<br>A2 Stereo/Bilingual B/G | | KV-DR29M39/DR29M63/DR29M69 |
| **Teletext language** | English, Arabic, French | | |
| **Channel coverage** | | | |
| **B/G** | VHF: E2 to E12<br>UHF: E21 to E69<br>CATV: S01 to S03, S1 to S41 | | |
| | VHF: 1 to 11<br>UHF: 21 to 69<br>CATV: S01 to S03, S1 to S41 | | KV-DR29M39 |
| **I** | UHF: B21 to B68<br>CATV: S01 to S03, S1 to S41 | | |
| **D/K** | VHF: C1 to C12, R1 to R12<br>UHF: C13 to C57, R21 to R60<br>CATV: S01 to S03, S1 to S41, Z1 to Z39 | | |
| **M** | VHF: A2 to A13<br>UHF: A14 to A79<br>CATV: A-8 to A-2, A to W+4, W+6 to W+84 | | |
| **(Antenna)** | 75-ohm external terminal | | |
| **Audio output (Speaker)** | 6W + 6W | | |
| **3D WOOFER** | 15W | | |
| **Number of terminal** | | | |
| **Video** | Input: 4 | Output: 1 | Phone jacks; 1 Vp-p, 75 ohms |
| **♪ Audio** | Input: 4 | Output: 1 | Phone jacks; 500 mVrms |
| **(S Video)** | Input : 2 | | Y: 1 Vp-p, 75 ohms<br>unbalanced, sync negative<br>C: 0.286 Vp-p, 75 ohms |
| **(Component Video)** | Input : 1 | | Phono jacks:<br>Y: 1 Vp-p, 75 ohms, sync negative<br>$P_B/C_B$: 0.7 Vp-p, 75 ohms<br>$P_R/C_R$: 0.7 Vp-p, 75 ohms<br>Audio: 500mVrms |
| **(Headphone)** | Output: 1 | | Stereo minijack |
| **Picture tube** | 29 in | | |
| **Tube size (cm)** | 72 | | Measured diagonally |
| **Screen size (cm)** | 68 | | Measured diagonally |
| **Dimension (w/h/d,mm)** | 786 × 596 × 514 | | |
| **Mass (kg)** | 57 | | |

Design and specifications are subject to change without notice.

**CAUTION**

**SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.**

**SAFETY-RELATED COMPONENT WARNING!!**

**COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.**

## TABLE OF CONTENTS


| Section | Title | Page |
|---|---|---|
| **SELF DIAGNOSTIC FUNCTION** | | 4 |
| **1. DISASSEMBLY** | | |
| 1-1. | Rear Cover Removal | 7 |
| 1-2. | 3D Speaker Box Removal | 7 |
| 1-3. | Speaker Removal | 7 |
| 1-4. | Chassis Assy Removal | 7 |
| 1-5. | Service Position | 7 |
| 1-6. | Service Position on TV Stand | 8 |
| 1.7. | Terminal Bracket Removal | 8 |
| 1-8. | B3 and D5 Boards Removal | 8 |
| 1-9. | F1 Board Removal | 8 |
| 1-10. | BC1, P and V2 Boards Removal | 8 |
| 1-11. | H1 and H2 Boards Removal | 9 |
| 1-12. | A and D Board Removal | 9 |
| 1-13. | Picture Tube Removal | 9 |
| **2. SERVICE JIG** | | 11 |
| **3. CIRCUIT BOARDS LOCATION** | | 11 |
| **4. ADVANCE OPERATION** | | |
| 4-1. | "RESET" Function | 12 |
| **5. SET-UP ADJUSTMENTS** | | |
| 5-1. | Beam Landing | 13 |
| 5-2. | Convergence Adjustment | 14 |
| 5-3. | Focus Adjustment | 16 |
| 5-4. | Neck Assy Twist Adjustment | 16 |
| 5-5. | G2 (SCREEN) and White Balance Adjustments | 16 |
| **6. CIRCUIT ADJUSTMENTS** | | |
| 6-1. | Adjustments With Commander | 17 |
| 6-2. | Adjustment Method | 17 |
| 6-3. | Picture Quality Adjustments | 36 |
| 6-4. | Sub Hue/Col Adjustment | 36 |
| 6-5. | Deflection Adjustments | 37 |
| 6-6. | A Board Adjustment After IC003 (MEMORY) Replacement | 38 |
| 6-7. | Picture Distortion Adjustment | 39 |
| **7. DIAGRAMS** | | |
| 7-1. | Block Diagram | 40 |
| 7-2. | Schematic Diagrams | 49 |
| | (1) A Board Schematic Diagrams | 50 |
| | (2) B3 Board Schematic Diagram | 54 |
| | (3) D Board Schematic Diagram | 56 |
| | (4) D5 Board Schematic Diagram | 58 |
| | (5) C Board Schematic Diagram | 60 |
| | (6) P Board Schematic Diagram | 62 |
| | (7) BC1 Board Schematic Diagram | 64 |
| | (8) H1 Board Schematic Diagram | 66 |
| | (9) H2 and J Boards Schematic Diagram | 68 |
| | (10) F1 and VM Boards Schematic Diagram | 70 |
| | (11) V2 Board Schematic Diagram | 72 |
| 7-3. | Voltage Measurement and Waveforms | 77 |
| 7-4. | Printed Wiring Boards and Parts Location | 92 |
| 7-5. | Semiconductors | 105 |
| **8. EXPLODED VIEWS** | | |
| 8-1. | Speaker Bracket | 108 |
| 8-2. | 3D Speaker | 108 |
| 8-3. | Chassis | 109 |
| 8-4. | Picture Tube | 111 |
| **9. ELECTRICAL PARTS LIST** | | 113 |
| **OPERATING INSTRUCTIONS** | | |

# SELF DIAGNOSTIC FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/TIMER lamp will automatically begin to flash.
The number of times the lamp flashes translates to a probable source of the problem. A definition of the STANDBY/TIMER lamp flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the remote commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

## 1. DIAGNOSTIC TEST INDICATORS

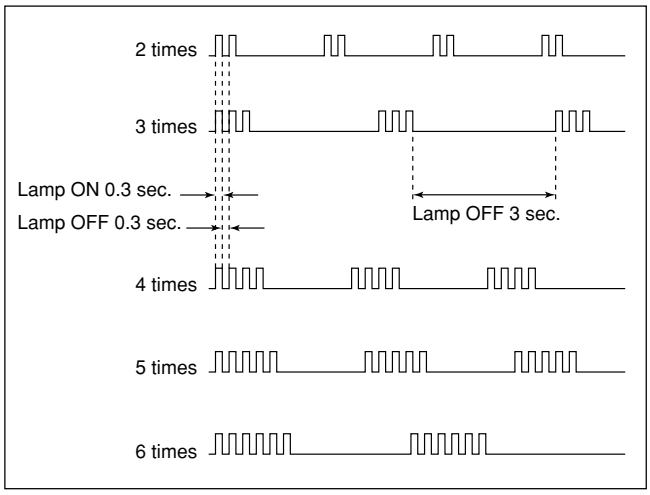
When an error occurs, the STANDBY/TIMER lamp will flash a number of times to indicate the possible cause of the problem. If there is more than one error, the lamp will identify the first of the problem areas.

Result for all of the following diagnostic items are displayed on screen. No error has occured if the screen displays a "0".

| Diagnostic Item Description | No. of times STANDBY/TIMER lamp flashes | Self-diagnostic display/Diagnostic result | Probable Cause Location | Detected Symptoms |
|---|---|---|---|---|
| • Power does not turn on | Does not light | — | • Power cord is not plugged in.<br>• Fuse is burned out F1601 (F1 Board) | • Power does not come on.<br>• No power is supplied to the TV.<br>• AC power supply is faulty. |
| • +B overcurrent (OCP) | 2 times | 002:000 or 002:001~255 | • H.OUT Q6807 is shorted.<br>• H.IN Q6810 is shorted. Q6802 shorted. | • Power does not come on.<br>• Load on power line is shorted. |
| • +B overvoltage (OVP) | 3 times | 003:000 or 003:001~255 | • PH6602 faulty. D6644 faulty, R6651 open.<br>• 10.5V is not supplied. (D board) | • Power does not come on. |
| • Vertical deflection failure | 4 times | 004:000 or 004:001~255 | • V.OUT IC6800 faulty<br>D6816 faulty<br>D6817 faulty<br>D6824 faulty<br>R6852 open<br>R6851 open (D board) | • Vertical deflection pulse is stopped.<br>• Vertical size is too small.<br>• Vertical deflection stopped. |
| • White balance failure (no PICTURE) | 5 times | 005:000 or 005:001~255 | • G2 is improperly adjusted. (Note 2)<br>• CRT problem.<br>• Video OUT IC9001, 9002, 9003 are faulty. (C board)<br>• IC8306 (A board) and IC4301 (A board) are faulty. | • No raster is generated.<br>• CRT cathode current detection reference pulse output is small. |
| • Horizontal deflection failure | 6 times | 006:000 or 006:001~225 | • C6831 is open circuit. PS6606 open, PS6605 open. (D board) | • H pulse output is too high. |
| • Micro reset | — | 101:00 or 101:001~225 | • CRT Discharge (C Board)<br>• Static discharge<br>• External noise | • Power is shut down shortly, after this return back to normal.<br>• Detect Micro latch up. |

Note 1: Refer to screen (G2) Adjustment in section 5-5 of this manual.

## 2. DISPLAY OF STANDBY/TIMER LIGHT FLASH COUNT




| Diagnostic Item | Flash Count* |
|---|---|
| +B overcurrent | 2 times |
| +B overvoltage | 3 times |
| V deflection stop | 4 times |
| White balance failure | 5 times |
| Horizontal Deflection Failure | 6 times |

* One flash count is not used for self-diagnostic.

STANDBY/SLEEP lamp

## 3. STOPPING THE STANDBY/TIMER FLASH

Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/TIMER lamp from flashing.

## 4. SELF-DIAGNOSTIC SCREEN DISPLAY

For errors with symptoms such as “power sometimes shuts off” or “screen sometimes goes off” that cannot be confirmed, it is possible to bring up past occurances of failure for confirmation on the screen:

**[To Bring Up Screen Test]**

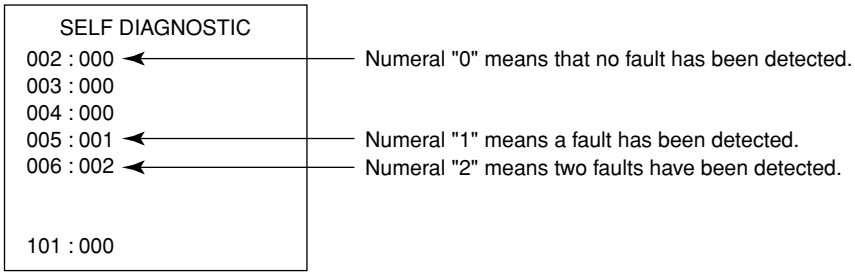
In standby mode, press buttons on the remote commander sequentially in rapid succession as shown below:

Screen display ➡ channel 5 ➡ Sound volume - ➡ Power ON

⇧

Note that this differs from entering the service mode (mode volume +).

**Self-Diagnosis screen display**


SELF DIAGNOSTIC
002 : 000
003 : 000
004 : 000
005 : 001
006 : 002
101 : 000
Numeral "0" means that no fault has been detected.
Numeral "1" means a fault has been detected.
Numeral "2" means two faults have been detected.

## 5. HANDLING OF SELF-DIAGNOSTIC SCREEN DISPLAY

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen during repairs. When you have completed the repairs, clear the result display to “0”.

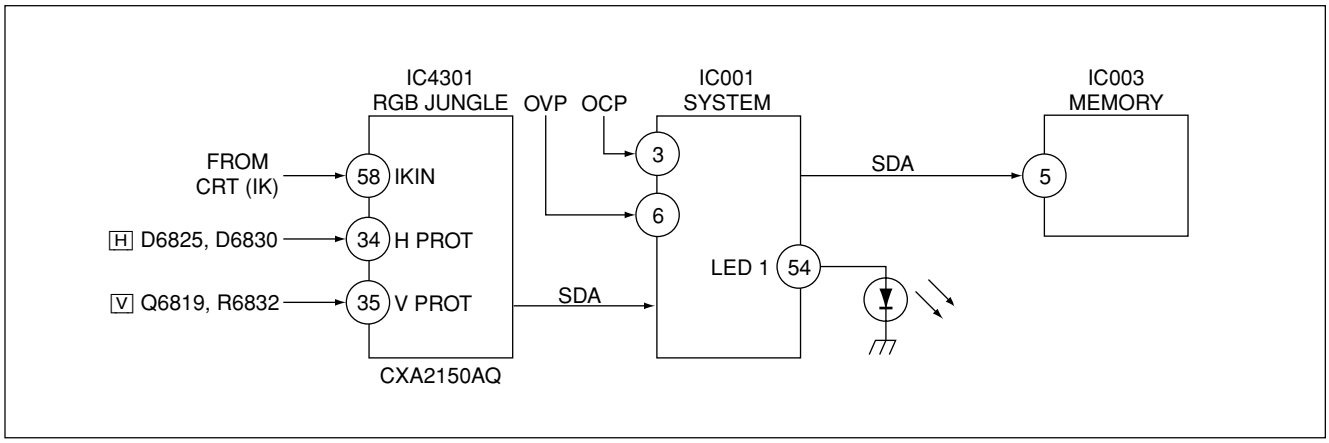
Unless the result display is cleared to “0”, the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

**[Clearing the result display]**
To clear the result display to “0”, press buttons on the remote commander sequentially as shown below when the diagnostic screen is being displayed.

Channel [8] ➡ 0

**[Quitting Self-diagnostic screen]**
To quit the entire self-diagnostic screen, turn off the power switch on the remote commander or the main unit.

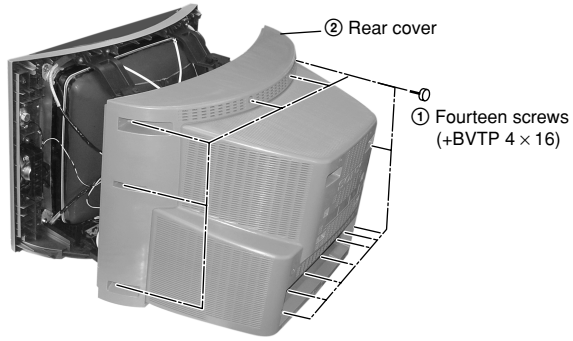
## 6. SELF-DIAGNOSTIC CIRCUIT



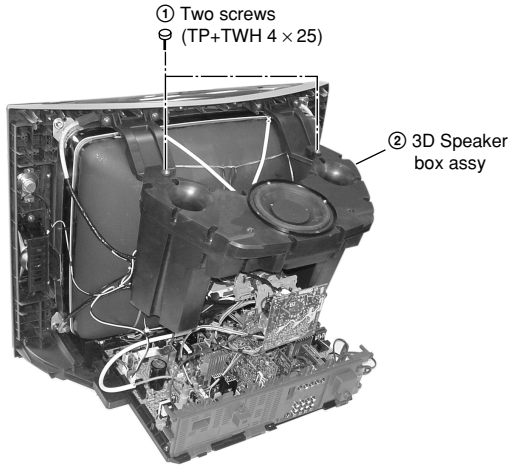

| | |
|---|---|
| +B overcurrent (OCP) | Occurs when an overcurrent on the +B(135) line is detected by Q6610 and Q6609.<br>If Q6610 and Q6609 go to ON, the voltage to the pin3 of IC001 go to UP.<br>The unit will automatically turn off. |
| +B overvoltage (OVP) | Occurs when an overvoltage on the +B(135) line is detected by D6635 and Q6611. If Q6611 go to ON, the voltage to pin6 of IC001 go to UP. The unit will automatically turn off. |
| Vertical deflection failure | Occurs when an absence of the vertical deflection pulse is detected by Q6819 and R6832. Shut down the power supply. |
| White balance failure | If the RGB levels do not balance or become low level within 5 seconds. This error will be detected by IC4301.<br>TV will stay on, but there will be no picture. |
| High voltage protector of Horizontal Deflection | Occurs when an overvoltage of horizontal pulse is detected by D6809 and IC6801.<br>If the voltage of anode D6830, Q6800 and D6825 goes to High, the voltage to pin34 of IC4301 go to UP. The unit will automatically turn off. |

# SECTION 1
# DISASSEMBLY

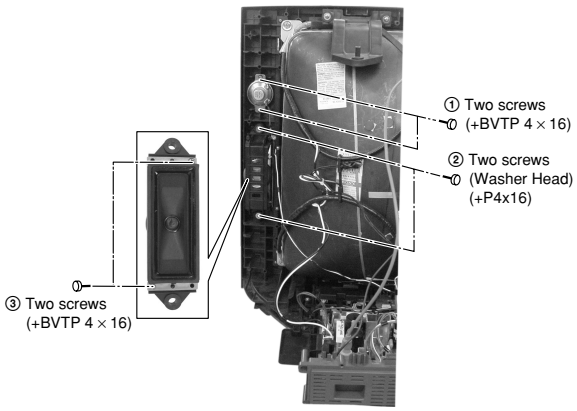
## 1-1. REAR COVER REMOVAL



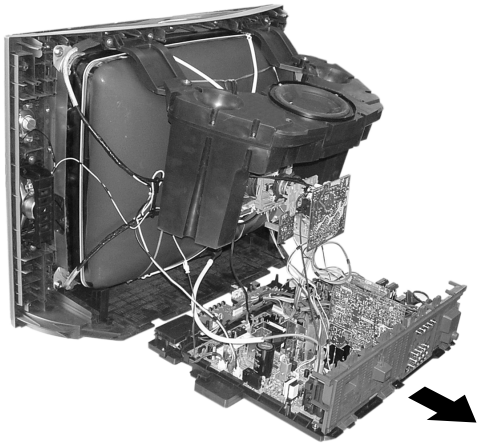

## 1-2. 3D SPEAKER BOX REMOVAL



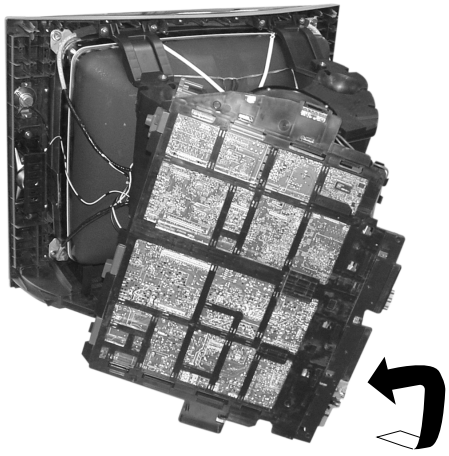

## 1-3. SPEAKER REMOVAL




## 1-4. CHASSIS ASSY REMOVAL



## 1-5. SERVICE POSITION



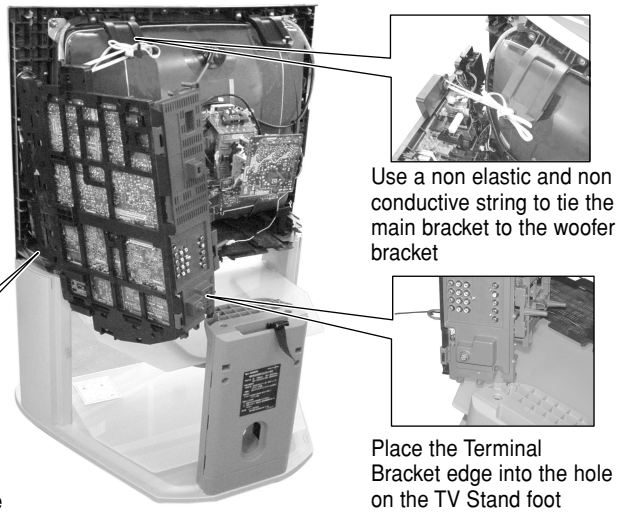
## 1-6. SERVICE POSITION ON TV STAND

Note: • The picture tube for OCE model is upside down and the position for the anode cap and tension springs are changed accordingly. (KV-DR29M39 (OCE) only)

1) Remove the Rear Cover (refer 1-1)
   - unscrew all 14 screws fixed on the Rear Cover. Hold the top of the TV Cabinet; lift the Rear Cover slightly upwards to release the Rear Cover foot from the TV Stand and slide it backwards from the TV Cabinet.
2) Remove the 3D Speaker Box (refer 1-2)
3) Release the Lead Assy Speaker (left side)
4) Lift up the chassis and place it in the Service Position as shown:-

Caution: 1) In Service Position, make sure all the TV connections are connected correctly before turning on the TV set.
2) The TV on the TV Stand without Rear Cover is unstable. As such be careful not to push the TV foward or backward

Place the front of the main bracket on to the foot of the TV Cabinet



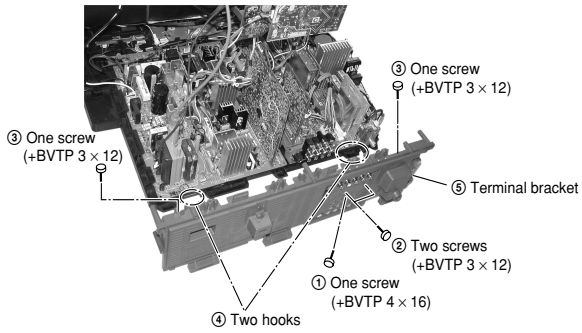


Use a non elastic and non conductive string to tie the main bracket to the woofer bracket



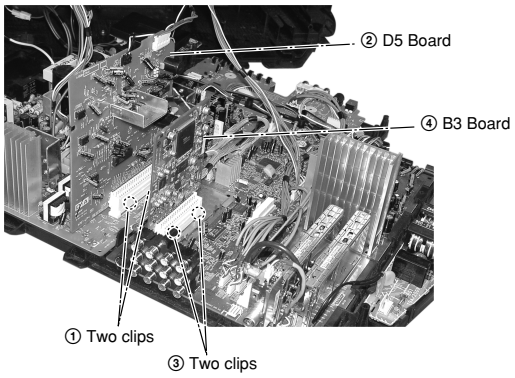
Place the Terminal Bracket edge into the hole on the TV Stand foot

## 1-7. TERMINAL BRACKET REMOVAL

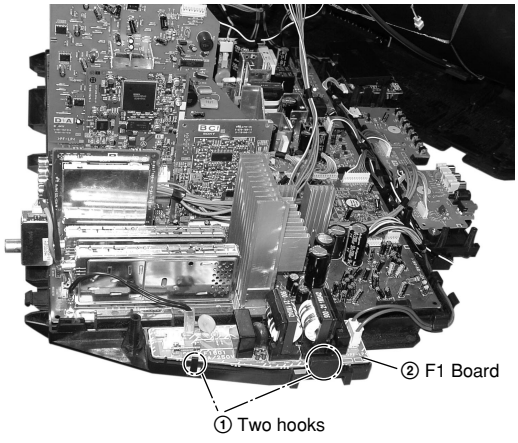



## 1-8. B3 AND D5 BOARDS REMOVAL

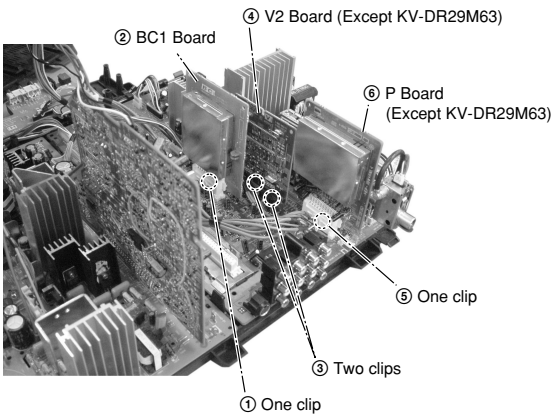
Note: Access to the B3 board is possible after removal of the shiledcase. Remove the shiledcase by removing 2 screws +BVTP 3x16



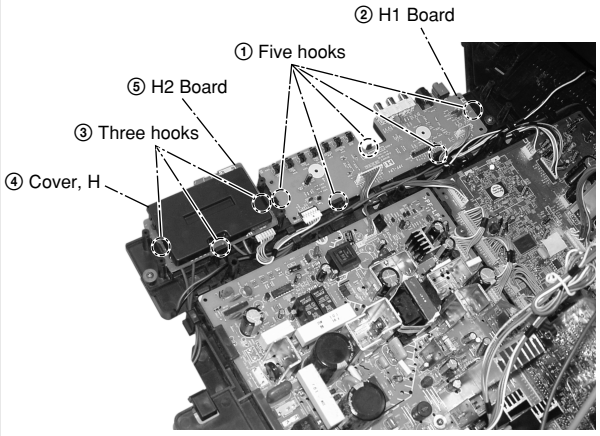

## 1-9. F1 BOARD REMOVAL



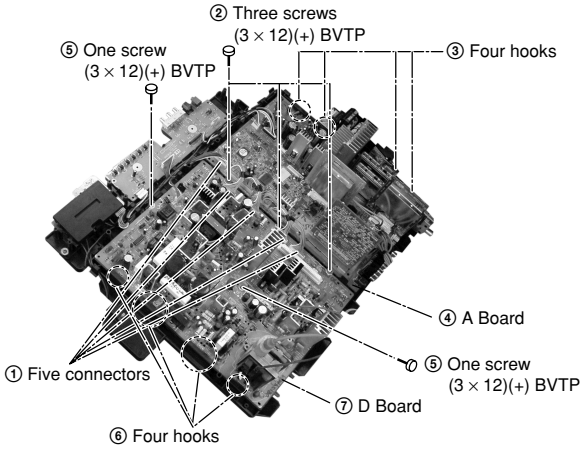

## 1-10. BC1, P AND V2 BOARDS REMOVAL



## 1-11. H1 AND H2 BOARDS REMOVAL




## 1-12. A AND D BOARDS REMOVAL

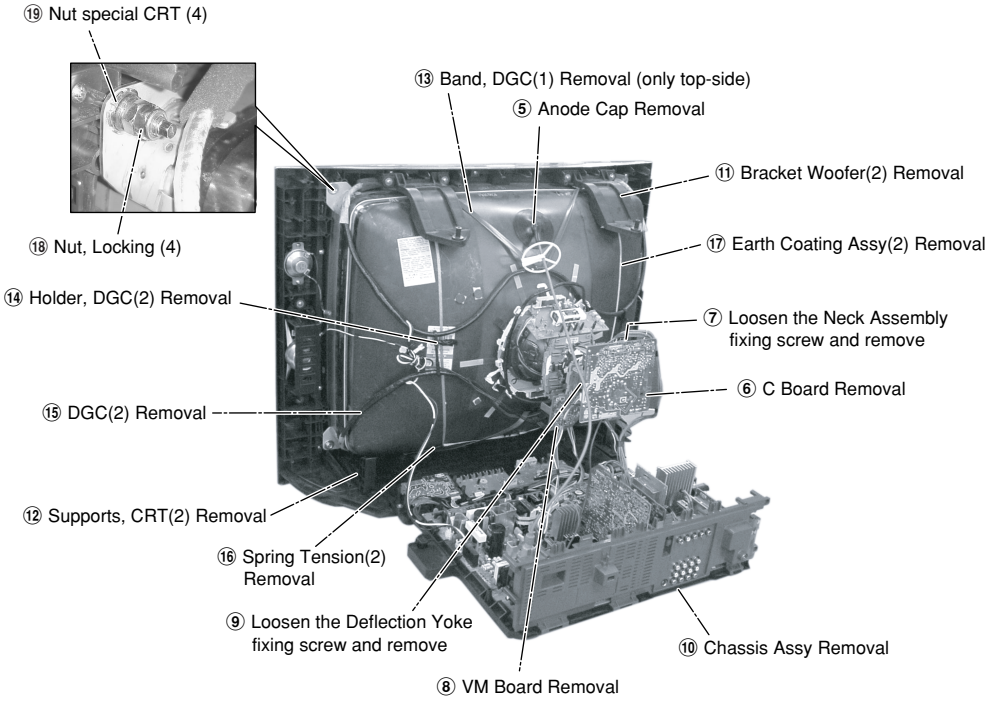



## 1-13. PICTURE TUBE REMOVAL

**Note:**

- The picture tube for OCE model is upside down and the position for the anode cap and tension springs are changed accordingly. (KV-DR29M39 (OCE) only)
- Please make sure the TV set is not in standing position before removing necessary CRT support located on bottom right and left.
- When removing the Nut Locking: first make sure to hold the Nut special CRT with a spanner while opening the Nut Locking using a torque driver. Then proceed to remove the Nut special CRT using a torque driver.

1) Place the TV set with the CRT face down on a cushion (jig).
2) Removal the Rear Cover.
3) Removal the 3D Box.
4) Unplug all interconnecting leads from the Deflection Yoke, Neck Assy, Degaussing Coils and CRT grounding strap.

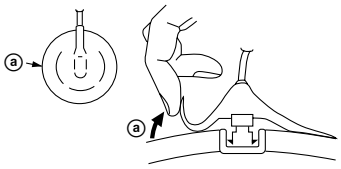

⑲ Nut special CRT (4)
⑱ Nut, Locking (4)
⑬ Band, DGC(1) Removal (only top-side)
⑤ Anode Cap Removal
⑪ Bracket Woofer(2) Removal
⑰ Earth Coating Assy(2) Removal
⑭ Holder, DGC(2) Removal
⑦ Loosen the Neck Assembly fixing screw and remove
⑥ C Board Removal
⑮ DGC(2) Removal
⑫ Supports, CRT(2) Removal
⑯ Spring Tension(2) Removal
⑨ Loosen the Deflection Yoke fixing screw and remove
⑩ Chassis Assy Removal
⑧ VM Board Removal

## • REMOVAL OF ANODE-CAP

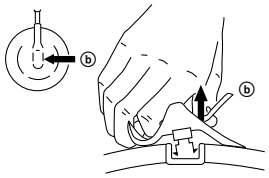
**Note:**

- After removing the anode, short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT.

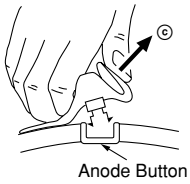
### • REMOVING PROCEDURES




① **Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.**



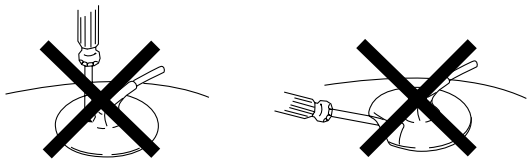

② **Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.**




③ **When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ.**

### • HOW TO HANDLE AN ANODE-CAP

① **Do not damage the surface of anode-caps with sharp shaped objects.**
② **Do not press the rubber too hard so as not to damage the inside of anode-cap.**
**A metal fitting called the shatter-hook terminal is built into the rubber.**
③ **Do not turn the foot of rubber over too hard.**
**The shatter-hook terminal will stick out or damage the rubber.**

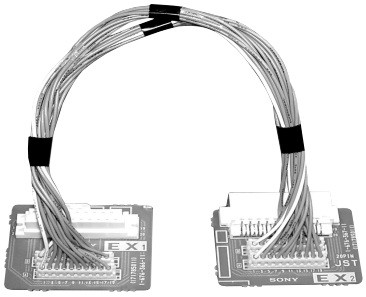


# SECTION 2
# SERVICE JIG

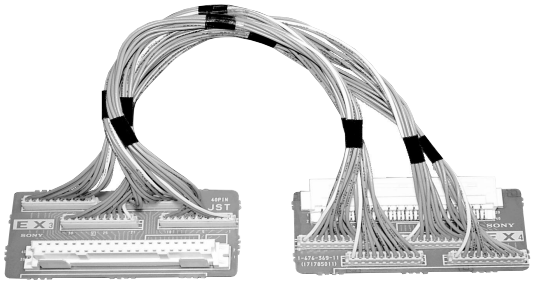
## 2-1. JIGS REQUIRED FOR SERVICING

| REF NO. | DESCRIPTION | QUANTITY | PART NO. | REMARK |
|---|---|---|---|---|
| J-1 | TOOL(20P),SERVICE | 1<br>1 | 3-702-763-01 | For A to BC1 board extension<br>For A to P board extension<br>(except KV-DR29M63) |
| J-2 | TOOL(40P),SERVICE | 1 | 3-702-764-01 | For A to B3 board extension |
| J-3 | TOOL(50P-A),SERVICE | 1 | 3-702-765-01 | For D to D5 board extension |
| J-4 | TOOL(7PX2),SERVICE | 1 | 3-702-775-01 | For A to V2 board extension<br>(except KV-DR29M63) |

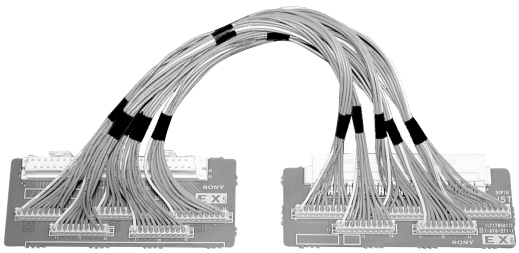
**J-1**



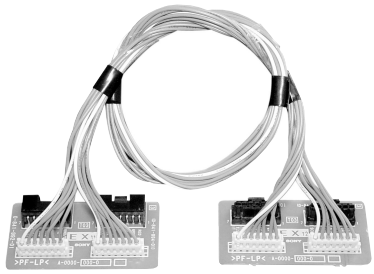
**J-2**



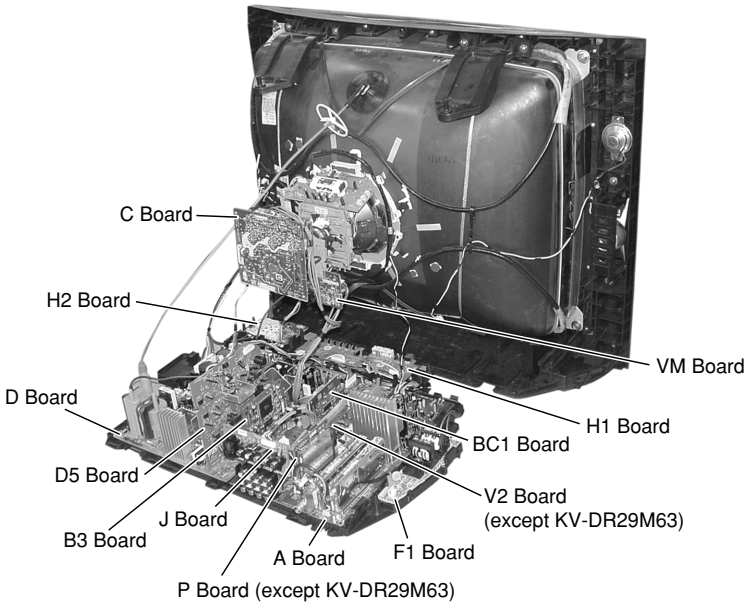
**J-3**



**J-4**



# SECTION 3
# CIRCUIT BOARDS LOCATION



# SECTION 4
# ADVANCE OPERATION

## 4-1. "RESET" FUNCTION

### 1. Purpose

If a customer faces some setting problem that cannot be solved, using the "RESET" function some items will be reset to its original setting (shipping condition)

### 2. How to Operate

There are 2 ways to access to the "RESET" Function:-

a) By pressing "RESET" button on the Remote Commander.
b) By pressing "MENU" button on the Front Key Input and hold it down for 5 seconds.

### 3. Subsequent of Operation

Sequential to the resetting operation (either methods being used in No. 2), TV set would shut down once and automatically turn on again. The power-off duration is expected to be about 500msec. An OSD message, "RESET" tentatively will be displayed for 10 sec after IK status gets stable.
As a result, some items will be reset to an initial condition (shipment condition) wheareas some other remains at the last selection by user.

Items that remains at the last selection by user

| |
|---|
| Program No., PIC rotation, OSD Language, Fine tuning, TV System, Skip |

Reset Items

| | | | |
|---|---|---|---|
| Video input | RF | Antenna sensitivity | HIGH* (except KV-DR29M63) |
| Volume | 30 | Stereo mode | STEREO/NICAM* |
| DRC-MF | DRC1250 | Bilingual mode | MAIN* |
| Picture mode | DYNAMIC | High-deviation mode | AUTO* |
| Sound mode | DYNAMIC | Child lock | OFF* |
| Surround mode | OF | Wide mode | OFF |
| Color system(video) | AUTO | Game mode | OFF |
| Multi picture(PIP) | OFF | Teletext mode | OFF |
| PIP position | Bottom-right | Sleep timer | OFF |
| OSD recall | OFF | Wake-up timer | OFF |
| Intelligent volume | OFF | Sound muting | OFF |
| ECO mode | OFF | 3DNR | ON |
| Color system(RF) | AUTO* | | |

*= only when in RF mode

# SECTION 5
# SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switches should be set as follows unless otherwise noted:

PICTURE control ..... normal
BRIGHTNESS control ..... normal

Perform the adjustments in the following order :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

**Note :** Test Equipment Required.

1. Color-bar/Pattern Generator
2. Degausser
3. Oscilloscope

**Preparation :**

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

## 5-1. BEAM LANDING

1. Input a white signal with the pattern generator.
   Contrast } normal
   Brightness }
2. Position neck assy as shown in Fig 5-1.
3. Set the pattern generator raster signal to a green raster.
4. Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side. (See Figures 5-1 through 5-3.)
5. Move the deflection yoke forward and adjust so that the entire screen is green. (See Figure 5-2.)
6. Switch the raster signal to blue, then to red and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws and DY spacers.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Figure 5-4.)

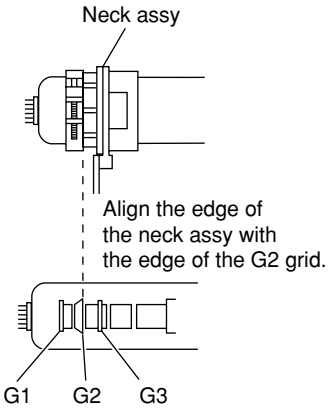



**Fig. 5-1**

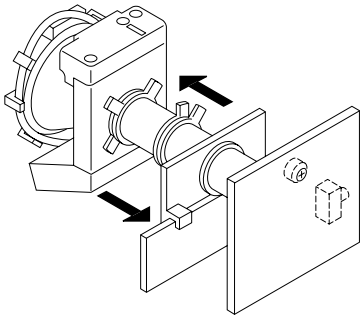


**Fig. 5-2**

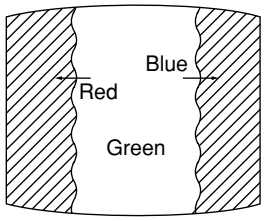



**Fig. 5-3**

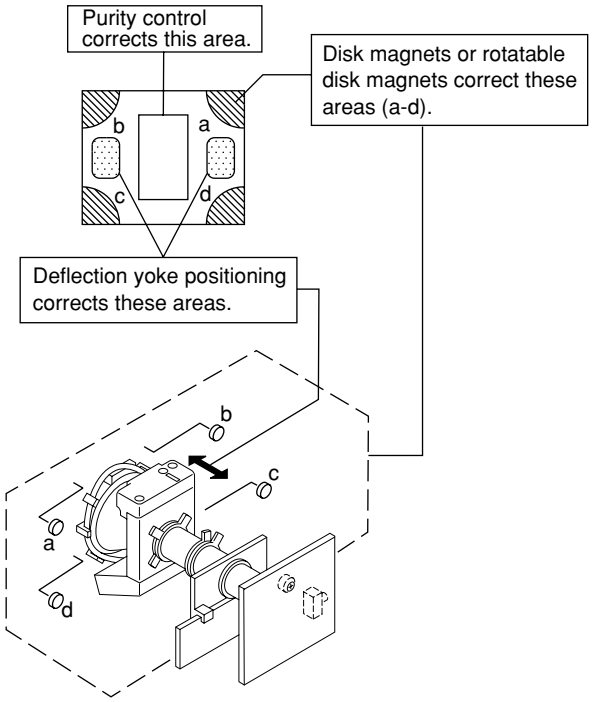


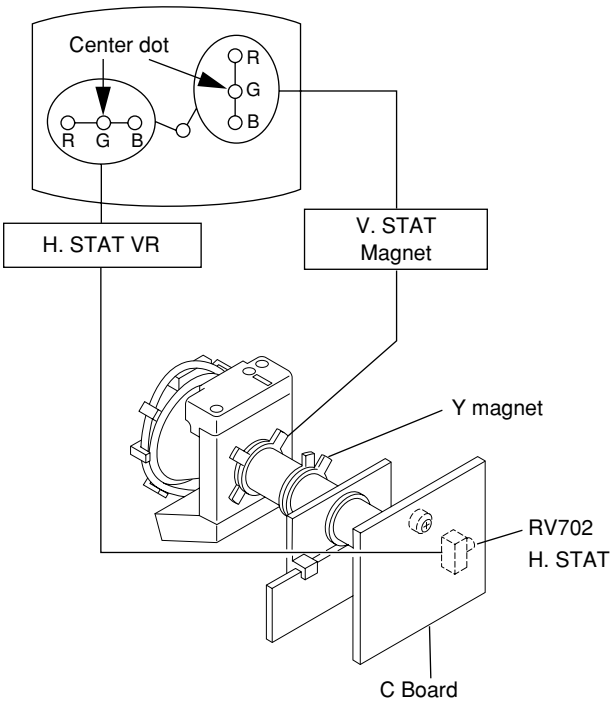

**Fig. 5-4**

## 5-2. CONVERGENCE ADJUSTMENT

**Preparation :**

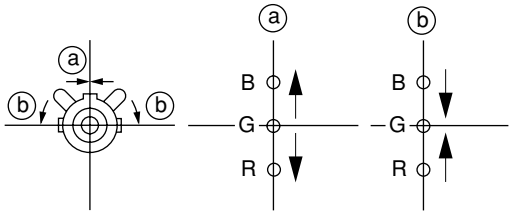
- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Receive cross hatch/dot pattern and set picture mode to "STANDARD".

**(1) Horizontal and Vertical Static Convergence**

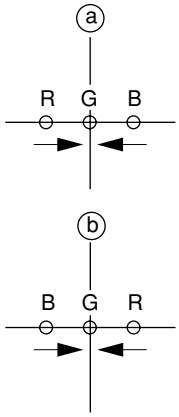



1. (Moving horizontally), adjust the H.STAT control so that the red, green and blue dots are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green and blue dots are on top of each other at the center of the screen.
3. Adjust Horizontal Trapezoid with “GEO 11 HTR” in Service Mode to make H-Trapezoid distortion best.
4. If the H.STAT variable resistor cannot bring the red, green and blue dots together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other, so be sure to perform adjustments while tracking.)

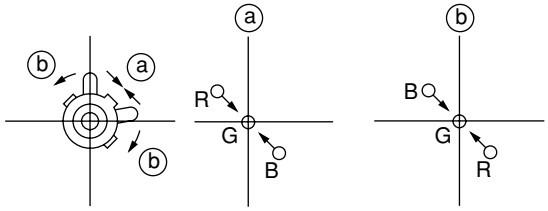
① V. STAT

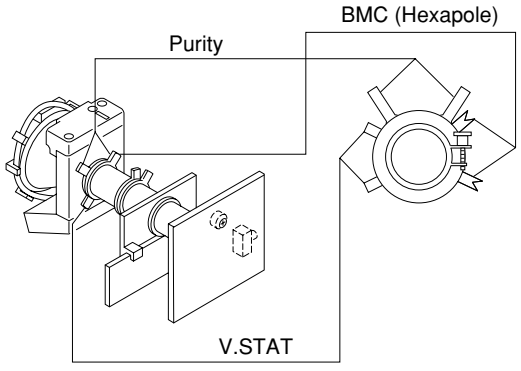



② H. STAT VR

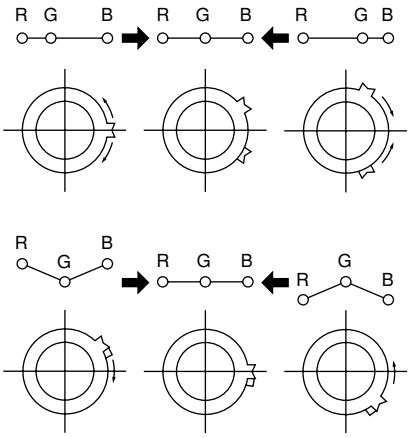



③



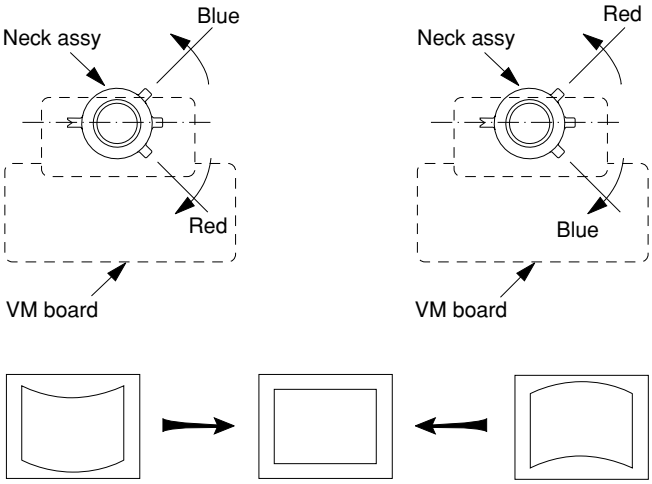
④ BMC (Hexapole) Magnet.
If the red, green and blue dots are not balanced or aligned, then use the BMC magnet to adjust in the manner described below.




⑤ Y separation axis correction magnet adjustment.

1. Receive the cross-hatch signal and adjust [PICTURE] to [MIN] and [BRIGHTNESS] to [STANDARD] .

2. Adjust the Y separation axis correction magnet on the neck assembly so that the horizontal lines at the top and bottom of the screen are straight.




**Note**

1. The Red and Blue magnets should be equally far from the horizontal center line.
2. Do not separate the Red and Blue magnets too far. (Less than 8 mm)

**(2) Dynamic Convergence Adjustment**

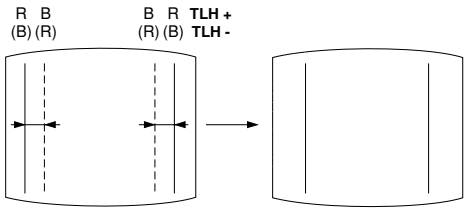
**Preparation:**

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence
- Set the PICTURE and BRIGHTNESS to normal.

**1. Adjust TLH. (TLH convergence piece)**

① Receive the dot/hatch pattern signal and adjust picture quality by the menu.

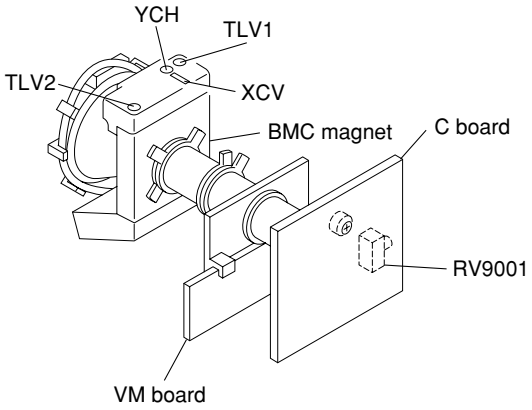
② Correct horizontal mis-convergence of red and blue of both sides on the X axis.
When red is outside insert TLH convergence piece to right side (TLH +) views from DY neck. And when blue is outside, insert it to left side (TLH –) and take both sides.



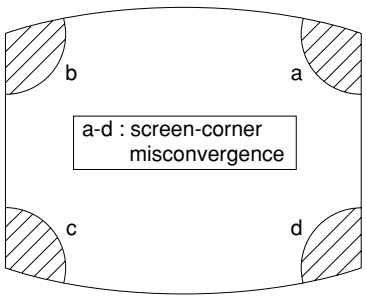

**2. Adjust XCV core.**
To able to become balance of XCV on the X axis well.

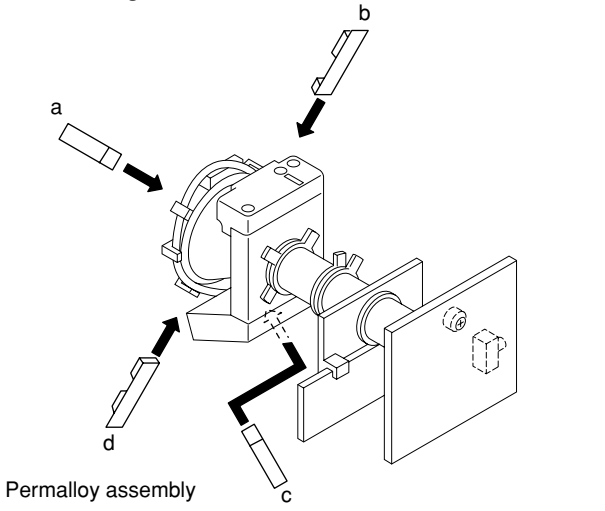
**3. Adjust V-TILT.**
Correct the vertical mis-convergence of red and blue of vertically sides on the Y axis.

**4. Adjust YCH.**
Adjust horizontal mis-convergence of red and blue of vertically sides on the Y axis. Mentioned above steps 2 to 4 are adjusting respectively perform minuteness tracking.




**(3) Screen-corner Convergence**



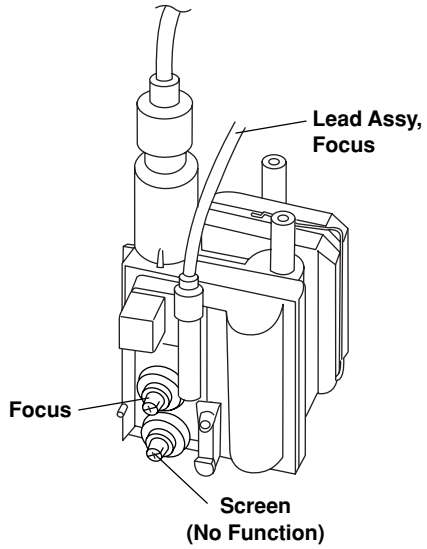



## 5-3. FOCUS ADJUSTMENT

**Note**

Focus adjustment should be completed before W/B adjustment.

(1) Receive digital monoscope pattern.
(2) Set "A/V CONTROL" to "STANDARD".
(3) Adjust FOCUS VR so that the center of the screen becomes just focus.
(4) Change the receiving signal to white pattern and blue back.
(5) Confirm MAGENTA RING is not noticeable. In case MAGENTA RING is obvious, adjust FOCUS VR to balance between MAGENTA RING and FOCUS adjustment.




**FLYBACK TRANSFORMER (T6803)**

## 5-4. NECK ASSY TWIST ADJUSTMENT

(1) Receive dot/hatch pattern DRC-MF, DRC1250, DYNAMIC.
(2) Turn FOCUS VR fully counter-clockwise.
(3) Confirm the dot shape at the screen center. (Fig. 5-4)
(4) Resume FOCUS VR.

**Note**

In case of turning NECK ASSY, loosen the screw 3 turns. Do not move the position.

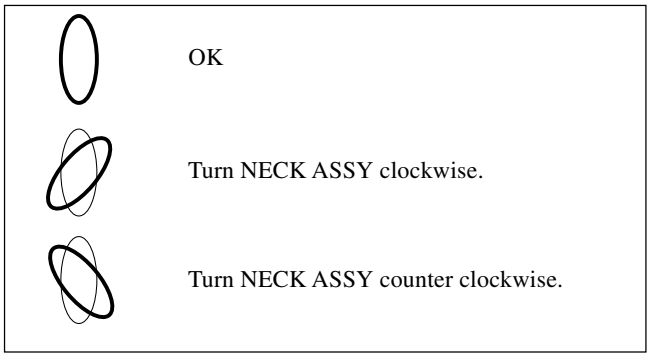
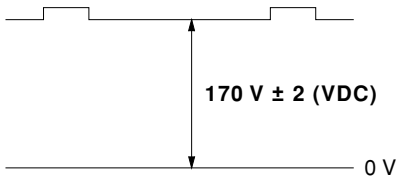



**Fig. 5-4**

## 5-5. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENT

### 1. G2 (SCREEN) ADJUSTMENT

1) Set the PICTURE and BRIGHTNESS to normal.
2) Put to VIDEO input mode without signals.
3) Connect R, G and B of the C board cathode to the oscilloscope.
4) Adjust BRIGHTNESS to obtain the cathode voltage to the value below.
5) Whilst watching the picture, adjust the screen VR [RV9002] located on the C board to the point just before the retrace lines disappear (to the point before cut-off)




### 2. WHITE BALANCE ADJUSTMENT

1) Set to Service Mode (Refer Section 6-1: ADJUSTMENTS WITH COMMANDER).
2) Input white raster signal.
3) Set the following condition.
   PICTURE minimum, BRIGHTNESS 50%
4) Select GCT (WHB 08) and BCT (WHB 09) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
5) Set the PICTURE to maximum.
6) Select GDR (WHB 05) and BDR (WHB 06) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
7) Write into the memory by pressing [MUTING] then [0].

# SECTION 6
# CIRCUIT ADJUSTMENTS

## 6-1. ADJUSTMENTS WITH COMMANDER

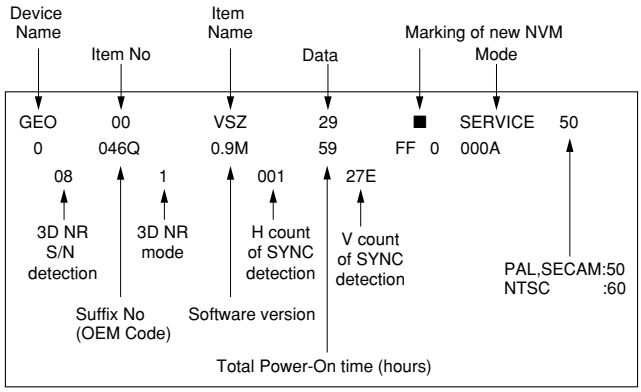
Service adjustments to this model can be performed using the supplied Remote Commander RM-991.

### a. ENTERING SERVICE MODE

With the unit on standby

→ [DISPLAY] → [5] → [VOL (+)] → [POWER]

The screen display is :




### b. CANCELLATION OF SERVICE MODE

Set the standby condition (Press [POWER] button on the commander), then press [POWER] button again, hereupon it becomes TV mode.

### c. METHOD OF WRITE INTO MEMORY

1) Set to Service Mode.
2) Press [1] (UP) and [4] (DOWN), to select the adjustment item Name.
3) Press [3] or [6] to raise/lower the data value.
4) Press [MUTING] button to indicate WRITE on the screen.
5) Press [0] button to write into memory.

### d. OTHER FUNCTION VIA REMOTE COMMANDER

| | |
|---|---|
| [7], [0] | All the data becomes the values in memory. |
| [8], [0] | All goes to the standard state. |
| [5], [0] | Service data initialization (Be sure not to use usually.) |
| [DISPLAY], [0] | Write 50Hz adjustment data to 60Hz, or vice versa. |
| [2], [0] | Copy and write all data. |
| [Cursor +/–] | Skip category (device) to category (device) |

example : GEO 00 VSZ
↕
DAC 00 HCT

### e. MEMORY WRITE CONFIRMATION METHOD

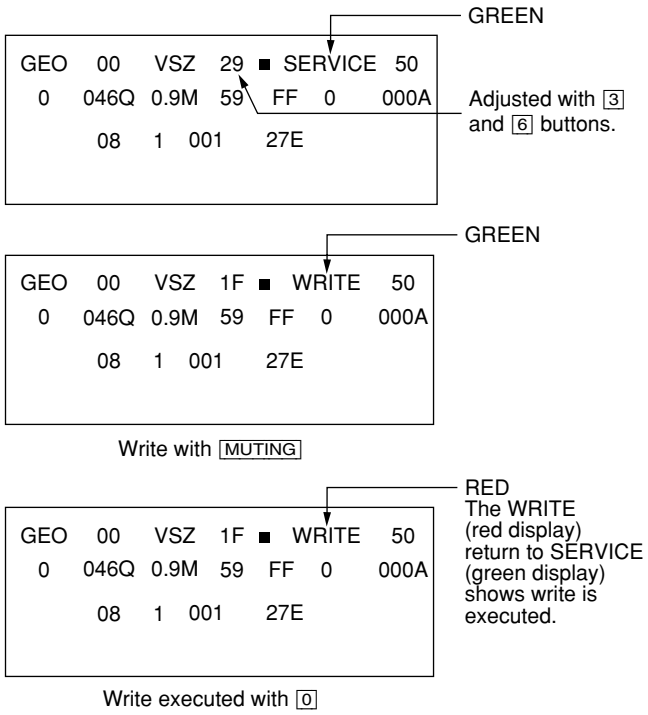
1) After adjustment, pull out the plug from AC outlet, and then plug into AC outlet again.
2) Turn the power switch ON and set to Service Mode.
3) Call the adjusted items again to confirm adjustments were made.

## 6-2. ADJUSTMENT METHOD

Item Number 00 of device GEO
This explanation uses V-size as an example.

1. Select "GEO 00 VSZ" with the [1] and [4] buttons.
2. Raise/lower the data with the [3] and [6] buttons.
3. Select the optimum state. (The standard is 1F for PAL reception.)
4. Press [MUTING] button to indicateWRITE on screen. (The display from SERVICE (green display) to WRITE (green display).
5. Execute the writing with the [0] button. (The WRITE display changes to red color while executing and then back to SERVICE (green display).
6. The WRITE execution is completed.

Example on screen display :-


GREEN
GEO 00 VSZ 29 ■ SERVICE 50
0 046Q 0.9M 59 FF 0 000A
08 1 001 27E
Adjusted with [3] and [6] buttons.
GREEN
GEO 00 VSZ 1F ■ WRITE 50
0 046Q 0.9M 59 FF 0 000A
08 1 001 27E
Write with [MUTING]
RED
The WRITE (red display) return to SERVICE (green display) shows write is executed.
GEO 00 VSZ 1F ■ WRITE 50
0 046Q 0.9M 59 FF 0 000A
08 1 001 27E
Write executed with [0]

Use the same method for all Items.

**Note** : 1. In [WRITE], the data for all items are written into memory together.
2. For adjustment items that have different standard data between 50Hz or 60Hz, be sure to use the respective input signal after adjustment.

## Adjustment Item Table

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | 50NC | 60NC | 50VC | 60VC | PROG50 NC | PROG60 NC | PROG50 VC | PROG60 VC |
| GEO | 00 | VSZ | 21 | 3F | V Size | 50/60*VC/NC | CXA2150AQ | 1F | 22 | 1F | 22 | | | | |
| | 01 | VPS | 27 | 3F | V position | 50/60*VC/NC | | 1F | 1D | 1F | 1D | | | | |
| | 02 | VLN | 5 | 0F | V Linearity | 50/60*VC/NC | | 07 | 07 | 07 | 07 | | | | |
| | 03 | SCO | 0A | 0F | S Correction | 50/60*VC/NC | | 09 | 09 | 09 | 09 | | | | |
| | 04 | HSZ | 1E | 3F | H Size | 50/60*VC/NC | | 1D | 19 | 1F | 19 | | | | |
| | 05 | HPS | 2F | 3F | H Position | 50/60/DVDProg 50/DVDProg 60*VC/NC | | 1A | 11 | 17 | 0F | 12 | 0A | 12 | 0A |
| | 06 | PAP | 28 | 3F | Pin Amp | 50/60*VC/NC | | 15 | 16 | 18 | 1A | | | | |
| | 07 | UPN | 25 | 3F | Upper Corner Pin | 50/60*VC/NC | | 25 | 27 | 2A | 30 | | | | |
| | 08 | LPN | 23 | 3F | Lower Corner Pin | 50/60*VC/NC | | 26 | 26 | 25 | 29 | | | | |
| | 09 | UCG | 0 | 3 | Most Upper Corner Pin Adjustment | 50/60*VC/NC | | 01 | 01 | 02 | 02 | | | | |
| | 0A | LCG | 1 | 3 | Most Lower Corner Pin Adjustment | 50/60*VC/NC | | 01 | 01 | 02 | 01 | | | | |
| | 0B | UCP | 2 | 3 | Most Upper Corner Pin Correction Position Setting | 50/60*VC/NC | | 02 | 01 | 01 | 01 | | | | |
| | 0C | LCP | 2 | 3 | Most Lower Corner Pin Correction Position Setting | 50/60*VC/NC | | 02 | 02 | 01 | 01 | | | | |
| | 0D | POL | 0 | 1 | Most Upper/Lower Pin Polarity | 50/60*VC/NC | | 00 | 00 | 00 | 00 | | | | |
| | 0E | PPH | 24 | 3F | V Trapezoid Adjustment | FF/R4/PR*50/60*VC/NC | | 25 | 25 | 29 | 29 | | | | |
| | 0F | AGL | 0A | 0F | AFC Angle | 50/60*VC/NC | | 19 | 19 | 1A | 1A | | | | |
| | 10 | BOW | 6 | 0F | AFC Bow | 50/60*VC/NC | | 1E | 1D | 21 | 1E | | | | |
| | 11 | HTR | 0F | 1F | V SawO Wave Saw Level Gain Control | FF/R4/PR*50/60*VC/NC | | 08 | 08 | 08 | 08 | | | | |
| | 12 | MPD | 4 | 0F | MP Para Wave DC Bias Control | FF/R4/PR*50/60*VC/NC | | 07 | 07 | 07 | 07 | | | | |
| | 13 | MPA | 0E | 0F | MP Para Wave Gain Control | FF/R4/PR*50/60*VC/NC | | 06 | 06 | 06 | 06 | | | | |
| | 14 | PBP | 1F | 3F | H Cent Para Wave Saw Level Gain Control | FF/R4/PR*50/60*VC/NC | | 27 | 29 | 27 | 29 | | | | |
| | 15 | PBA | 0F | 1F | H Cent Para Wave Gain Control | FF/R4/PR*50/60*VC/NC | | 10 | 0E | 10 | 11 | | | | |
| | 16 | HBS | 1 | 1 | H Blk ON/OFF SW | FF/R4/PR*50/60*VC/NC | | 01 | 01 | 01 | 01 | | | | |
| | 17 | HBL | 37 | 3F | Left H Blk Position Control | 50/60/DVDProg 50/DVDProg 60*VC/NC | | 17 | 23 | 17 | 23 | 1C | 27 | 1C | 27 |
| | 18 | HBR | 2C | 3F | Right H Blk Position Control | 50/60/DVDProg 50/DVDProg 60*VC/NC | | 24 | 26 | 24 | 26 | 29 | 2B | 29 | 2B |
| | 19 | PCP | 0 | 7 | Pin Amp HV Distortion Correction Setting | FF/R4/PR*50/60*VC/NC | | 00 | 00 | 00 | 00 | | | | |
| | 1A | ACP | 1 | 7 | H Position HV Distortion Correction Setting | FF/R4/PR*50/60*VC/NC | | 00 | 00 | 00 | 00 | | | | |
| | 1B | VCP | 8 | 3 | Vertical HV Distortion Correction Setting | 50/60*VC/NC | | 0C | 0C | 0C | 0C | | | | |
| | 1C | HCP | 2 | 3 | H Size HV Distortion Correction Setting | 50/60*VC/NC | | 0A | 0A | 0A | 0A | | | | |
| | 1D | USC | 0 | 1 | Ref Pulse Jump Mode ON/OFF | FF/R4/PR*50/60*VC/NC | | 00 | 00 | 01 | 01 | | | | |
| | 1E | VAS | 2F | 3F | V Aspect Control | 50/60*VC/NC | | 2F | 2F | 32 | 31 | | | | |
| | 1F | VSC | 1F | 3F | V Scroll Control | 50/60*VC/NC | | 1F | 1F | 1E | 1E | | | | |
| | 20 | VBU | 7 | 1 | V Blk Top Position Control | FF/R4/PR*50/60*VC/NC | | 04 | 09 | 0E | 0C | | | | |
| | 21 | VBL | 7 | 1 | V Blk Bottom Position Control | FF/R4/PR*50/60*VC/NC | | 00 | 09 | 0C | 0F | | | | |
| | 22 | AKB | 0F | 1F | AKB Bch Ref Pulse Timing Setting | 50/60*VC/NC | | 1C | 0F | 1C | 17 | | | | |
| | 23 | VDS | 1 | 1 | Bch REF Pulse Jump ON/OFF Sw | FF/R4/PR*50/60*VC/NC | | 00 | 00 | 00 | 00 | | | | |
| | 24 | RST | 0 | 1 | Retrace Of V Drive Start Position Setting | FF/R4/PR*50/60*VC/NC | | 00 | 00 | 00 | 00 | | | | |
| | 25 | CPY | 0 | 1 | Copy the GEO data to all 50/60Hz NVM area | | | | | | | | | | |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | 50 | 60 | EcoOnNC | EcoOffNC | EcoOnVC | EcoOffVC |
| DAC | 00 | HCT | 33 | 7F | H Center | 50/60Hz | CXA1875 | | 40 | 40 | | | | |
| | 01 | HLN | 27 | 3F | H Linearity | 50/60Hz | | | 20 | 20 | | | | |
| | 02 | QDH | 1F | 3F | DF Phase | 50/60Hz | | | 83 | 83 | | | | |
| | 03 | HTS | BB | FF | H Trapezoid Start Data Setting | no table | | C9 | | | | | | |
| | 04 | HTO | 0E | FF | H Trapezoid Offset Data Setting | no table | | 0E | | | | | | |
| | 05 | NSS | 7F | FF | NS Start Data | no table | | 7E | | | | | | |
| | 06 | NSO | 09 | FF | NS Offset Data | no table | | 08 | | | | | | |
| | 07 | ABC | 0 | FF | ABL D/A Control | ECO on/off*VC/NC | | | | | 00 | 00 | 00 | 00 |
| | 08 | CPY | 0 | 1 | Copy the DAC data to all 50/60Hz NVM area | | | | | | | | | |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Common |
|---|---|---|---|---|---|---|---|---|
| Common | No | Name | | | | | | |
| WHB | 00 | YOS | 7 | 0F | DC Offset Canceller for Y signal | | CXA2150AQ | 07 |
| | 01 | UOS | 1F | 3F | DC Offset Canceller for Cb1 | | | 1F |
| | 02 | VOS | 1F | 3F | DC Offset Canceller for Cr1 | | | 1F |
| | 03 | SBR | 1F | 3F | Sub Brightness Control | | | 1F |
| | 04 | RDR | 29 | 3F | R Drive | | | 29 |
| | 05 | GDR | 24 | 3F | G Drive | | | 24 |
| | 06 | BDR | 25 | 3F | B Drive | | | 25 |
| | 07 | RCT | 29 | 3F | R Cutoff | | | 29 |
| | 08 | GCT | 10 | 3F | G Cutoff | | | 10 |
| | 09 | BCT | 25 | 3F | B Cutoff | | | 25 |
| | 0A | SBO | 20 | 3F | Sub Brightess Offset | Picture Mode except Dynamic | | 20 |
| | 0B | RDO | 1F | 3F | R Drive Offset | Picture Mode except Dynamic | | 1F |
| | 0C | GDO | 19 | 3F | G Drive Offset | Picture Mode except Dynamic | | 19 |
| | 0D | BDO | 1B | 3F | B Drive Offset | Picture Mode except Dynamic | | 1B |
| | 0E | RCO | 1F | 3F | R Cutoff Offset | Picture Mode except Dynamic | | 1F |
| | 0F | GCO | 29 | 3F | G Cutoff Offset | Picture Mode except Dynamic | | 29 |
| | 10 | BCO | 1A | 3F | B Cutoff Offset | Picture Mode except Dynamic | | 1A |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | EcoOnNC | EcoOffNC | EcoOnVC | EcoOffVC | 50 | 60 | Dynamic | Standard-/Drama | Hi-Fine/-Soft | Personal |
| SAJ | 00 | PIC | 3F | 3F | Picture Control | Picture Mode except Personal | CXA2150AQ | | | | | | | 3F | 33 | 28 | |
| | 01 | BRT | 1F | 3F | Brightness Control | Picture Mode except Personal | | | | | | | | 23 | 1F | 1B | |
| | 02 | COL | 27 | 3F | Color Control | Picture Mode except Personal | | | | | | | | 2E | 1F | 1F | |
| | 03 | HUE | 1F | 3F | Hue Control | Picture Mode except Personal | | | | | | | | 1F | 1F | 1F | |
| | 04 | SHP | 24 | 3F | Sharpness Control | Picture Mode except Personal | | | | | | | | 22 | 1F | 1D | |
| | 05 | VML | 3 | 3 | VM Level | Picture Mode | | | | | | | | 03 | 03 | 01 | 03 |
| | 06 | DYC | 1 | 1 | Dynamic Color on/off | Picture Mode | | | | | | | | 01 | 01 | 00 | 01 |
| | 07 | WBS | 0 | 0 | WB Switch | Picture Mode | | | | | | | | 00 | 00 | 00 | 00 |
| | 08 | CAX | 2 | 3 | Color Matrix Specification | 50/60Hz | | | | | | 01 | 03 | | | | |
| | 09 | GMA | 3 | 3 | Gamma Correction | Picture Mode | | | | | | | | 02 | 02 | 00 | 01 |
| | 0A | DCT | 1 | 3 | DC Transmission Control | Picture Mode | | | | | | | | 02 | 02 | 01 | 02 |
| | 0B | DPL | 1 | 3 | Auto Pedestal Level Control | Picture Mode | | | | | | | | 02 | 02 | 00 | 02 |
| | 0C | ABM | 0 | 3 | ABL Mode Control | Picture Mode | | | | | | | | 01 | 00 | 00 | 00 |
| | 0D | ABT | 0 | 3 | ABL Current detection Vth Control | ECO on/off*VC/NC | | 05 | 00 | 0C | 07 | | | | | | |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | EcoOnNC | EcoOffNC | EcoOnVC | EcoOffVC | 50TV | 50Video | 50DVD | 60TV | 60Video | 60DVD | DVDPR-OG50 | DVDPR-OG60 |
| SAJ | OE | CLO | 9 | 0F | Color Offset | 50/60*TV/Video/DVDProg50/60 | CXA2150AQ | | | | | | 06 | 08 | | 09 | 09 | | 04 | 04 |
| | OF | CLW | 3 | 7 | Color Step Width to the Change of S/N | | | 03 | | | | | | | | | | | | |
| | 10 | HUO | 9 | 0F | Hue Offset | 50/60*TV/Video/DVDProg50/60 | | | | | | | 05 | 03 | | 07 | 06 | | 04 | 05 |
| | 11 | SHO | 7 | 1F | Sharpness Offset | 50/60*TV/Video/DVDProg50/60 | | | | | | | 10 | 14 | 06 | 12 | 0F | 06 | 1A | 1A |
| | 12 | SHW | 1 | 7 | Sharpness Step Width to the Change of S/N | | | 01 | | | | | | | | | | | | |
| | 13 | BRO | 7 | 0F | Brightness Offset | ECO on/off*VC/NC | | | 07 | 07 | 07 | 07 | | | | | | | | |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | DVD PROG | 50NC | 60NC | 50VC | 60VC | DRC 100 NC | DRC 100 VC | DRC 120 NC | DRC 120 VC |
| JGL | 00 | PON | 1 | 1 | RGB and AKB Reference Pulse Output On/Off | | CXA2150AQ | 01 | | | | | | | | | |
| | 01 | RGB | 7 | 7 | RGB Output Selection | | | 07 | | | | | | | | | |
| | 02 | AGG | 0 | 3 | Aging Mode Selection | | | 00 | | | | | | | | | |
| | 03 | BBT | 3 | 3 | RGB Bottom Limitter Control | | | 03 | | | | | | | | | |
| | 04 | LML | 0 | 3 | RGB Amplitude Limitter Control | | | 00 | | | | | | | | | |
| | 05 | PAB | 0F | 0F | DC Level for Peak ABL | | | 0F | | | | | | | | | |
| | 06 | SAB | 0 | 3 | S ABL gain Setting | 50/60/DVDProg50/DVDProg60*VC/NC | | | | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| | 07 | SCO | 7 | 0F | Sub Picture Control | | | 07 | | | | | | | | | |
| | 08 | LV2 | 5 | 0F | RGB Level for RGB2 | | | 05 | | | | | | | | | |
| | 09 | GML | 0 | 1 | Gamma Differential Correction ON/OFF | | | 00 | 00 | | | | | | | | |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | 50TV | 50Video | 50DVD | 60TV | 60Video | 60DVD | Dynamic | Standard-/Drama | Hi-Fine/-Soft | Personal |
| JGL | OA | SYS | 2 | 3 | Signal Band Selection | 50/60*TV/Video/DVD | CXA2150AQ | | 01 | 02 | 01 | 02 | 02 | 01 | | | | |
| | OB | SF0 | 1 | 1 | Sharpness f0 Setting | 50/60*TV/Video/DVD | | | 01 | 01 | 01 | 01 | 01 | 01 | | | | |
| | OC | SF1 | 3 | 3 | High f0 Sharpness Gain Control | 50/60*TV/Video/DVD | | | 03 | 03 | 03 | 03 | 03 | 03 | | | | |
| | OD | CDS | 0 | 3 | Sharpness Gain Control in High Color Saturation | | | 00 | | | | | | | | | | |
| | OE | CDF | 0 | 1 | SHP CD ON/OFF | | | 00 | | | | | | | | | | |
| | OF | PRO | 3 | 3 | Pre/Over-Shoot Ratio Control | 50/60*TV/Video/DVD | | | 03 | 03 | 03 | 03 | 03 | 03 | | | | |
| | 10 | LTI | 3 | 3 | Luminance Transient Improvement | Picture Mode | | | | | | | | | 03 | 02 | 00 | 00 |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | DVD PROG | Dynamic | Standard-/Drama | Hi-Fine/-Soft | Personal | Dyna bsw |
| JGL | 11 | LTM | 0 | 3 | LTI Mode Setting | | CXA2150AQ | 00 | | | | | | |
| | 12 | CTI | 0 | 3 | Chrominance Transient Improvement | Picture Mode | | | | 00 | 00 | 00 | 00 | |
| | 13 | CTM | 0 | 3 | CTI Mode Setting | | | 00 | | | | | | |
| | 14 | VDL | 3 | 3 | VM OUT Phase Control | | | 03 | | | | | | |
| | 15 | VCR | 0 | 3 | VM OUT Coring Level Setting | | | 00 | | | | | | |
| | 16 | VFO | 0 | 3 | VM OUT F0 Setting | | | 00 | | | | | | |
| | 17 | VLM | 0 | 3 | VM OUT Limiter Level Setting | | | 00 | | | | | | |
| | 18 | AFC | 1 | 3 | AFC Loop Gain Control | Common/DVD Progressive | | 02 | 01 | | | | | |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | TV | Video |
| DRC | 00 | MOD | 0 | 3 | DRC Mode (For Evaluation Only)<br>00 - Normal, 01 - Forced 1250i,<br>02 - Forced Progressive, 03 - Forced Simple Progressive | | | | | |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | TV | Video |
| PIP | 00 | PRO | 0 | 1 | Progressive Scan Mode Enable | | SDA9489X | 00 | | |
| | 01 | RED | 0 | 1 | Read Double Mode | | | 00 | | |
| | 02 | FEI | 0 | 3 | Field Select | | | 00 | | |
| | 03 | HPS | 33 | FF | Horizontal Picture Position | | | 33 | | |
| | 04 | VPS | 1B | FF | Vertical Picture Position | | | 1B | | |
| | 05 | HFP | 8 | 0F | Horizontal Fine Positioning | | | 08 | | |
| | 06 | VFP | 0 | 0F | Vertical Fine Positioning | | | 00 | | |
| | 07 | DIS | 0 | 3 | Display Standard | | | 00 | | |
| | 08 | HOS | 0 | 3 | Horizontal Size | | | 00 | | |
| | 09 | VES | 0 | 3 | Vertical Size | | | 00 | | |
| | 0A | FPS | 0 | 3 | Force Parent Standard | | | 00 | | |
| | 0B | HZM | 0 | 7 | Horizontal Zoom | | | 00 | | |
| | 0C | VSP | 1 | 1 | Vertical Sync Pulse Noise Reduction | | | 01 | | |
| | 0D | VDL | 0 | 1F | Vertical Sync Pulse Delay | | | 00 | | |
| | 0E | FRH | 5 | 7 | Frame Width Horizontal | | | 05 | | |
| | 0F | FWV | 2 | 3 | Frame Width Vertical | | | 02 | | |
| | 10 | VRD | 0 | 1 | Reduction | | | 00 | | |
| | 11 | VBK | 0 | 1 | Vertical Blanking | | | 00 | | |
| | 12 | DLY | 1 | F | Select Delay | | | 01 | | |
| | 13 | PCR | 0 | 1 | Position Correction | | | 00 | | |
| | 14 | AGM | 3 | 3 | AGC Mode | | | 03 | | |
| | 15 | AGC | 9 | F | Automatic Gain Control Value | | | 09 | | |
| | 16 | CVB | 0 | 3 | CVBS Select | | | 00 | | |
| | 17 | CPD | 1 | 3 | CLAMPING Duration | | | 01 | | |
| | 18 | CPT | 1 | 3 | CLAMPING Pulse Start | | | 01 | | |
| | 19 | LUM | 0 | 3 | Luminance Offset | | | 00 | | |
| | 1A | PLL | 0 | 3 | Insert PLL Time constant | TV/Video | | | 00 | 00 |
| | 1B | YCD | 8 | F | Y/C Delay | | | 08 | | |
| | 1C | NSR | 0 | 3 | Nosie Reduction for inset Pll | TV/Video | | | 02 | 00 |
| | 1D | LSP | 0 | 1 | Standard Identification Speed | | | 00 | | |
| | 1E | KIL | 2 | 3 | Color Killer Treshold | | | 02 | | |
| | 1F | BGP | 1 | 1 | Burst Gate Position | | | 01 | | |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | TV | Video |
| PIP | 20 | SEC | 1 | 1 | SECAM Identification level | | | 01 | | |
| | 21 | DEM | 1 | 3 | Deemphase Selection | | | 01 | | |
| | 22 | CMA | 0 | 3 | Chroma Bandwith | | | 00 | | |
| | 23 | IFC | 2 | 3 | IF Compensation Filter | | | 02 | | |
| | 24 | HUE | 0 | 1F | Hue | | | 02 | | |
| | 25 | SCA | 6 | 1F | Color Subcarrier Adjustment | | | 06 | | |
| | 26 | CON | 0 | F | Contrast Adjustment | | | 00 | | |
| | 27 | BLR | 0 | F | Blanking Level Red Channel | | | 00 | | |
| | 28 | BRT | 0 | F | Brightness Adjustment | | | 03 | | |
| | 29 | BLG | 0 | F | Blanking Level Green Channel | | | 00 | | |
| | 2A | BIR | 0 | 1 | Blanking Inversion Red Channel | | | 00 | | |
| | 2B | BIB | 0 | 1 | Blanking Inversion Blue Channel | | | 00 | | |
| | 2C | BLB | 0 | F | Blanking Level Blue Channel | | | 00 | | |
| | 2D | INT | 0 | 1 | Refresh Intervall | | | 00 | | |
| | 2E | PKR | 85 | FF | Peak Level Red Channel | | | 85 | | |
| | 2F | PKG | 85 | FF | Peak Level Green Channel | | | 85 | | |
| | 30 | PKB | 85 | FF | Peak Level Blue Channel | | | 85 | | |
| | 31 | FRY | 9 | F | Frame Color Y | | | 09 | | |
| | 32 | OUT | 1 | 1 | Output Format | | | 01 | | |
| | 33 | FRU | 0 | F | Frame Color U | | | 00 | | |
| | 34 | FRV | 0 | F | Frame Color V | | | 00 | | |
| | 35 | SAT | 7 | F | Color Saturation Adjustment | | | 07 | | |
| | 36 | YPK | 3 | 7 | Y Peak Adjustment | | | 03 | | |
| | 37 | YCO | 0 | F | Y Coring Enable | | | 00 | | |
| | 38 | PAL | 3 | 3 | PAL ID Level | | | 03 | | |
| | 39 | POV | 0 | 7 | Position Offset Vertical | | | 00 | | |
| | 3A | POH | 0 | 1F | Position Offset Horizontal | | | 00 | | |
| | 3B | VSH | 0 | 1F | Vertical Shrink | | | 00 | | |
| | 3C | HSH | 0 | 1F | H Shrink | | | 00 | | |
| | 3D | CPL | 1 | 3 | CLAMPING Pulse Length | | | 01 | | |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | TV | Video | 50TV | 50Video | 50DVD | 60TV | 60Video | 60DVD |
| YCT | 00 | TNT | 20 | 3F | Tint Adjustment for NTSC | TV/Video | CXA2163AQ | | 1F | 1F | | | | | | |
| | 01 | PNG | 1 | 1 | PAL/NTSC Gate Width | | | 01 | | | | | | | | |
| | 02 | PNI | 0 | 1 | PAL/NTSC Sensitivity SW | | | 00 | | | | | | | | |
| | 03 | SCL | 5 | 0F | Sub Color Control | 50/60*TV/Video | | | | | 05 | 06 | | 05 | 06 | |
| | 04 | SCT | 7 | 0F | Sub Contrast Control | 50/60*TV/Video | | | | | 07 | 07 | | 07 | 07 | |
| | 05 | SF0 | 2 | 3 | Sharpness Center Ferquency Changing | | | 02 | | | | | | | | |
| | 06 | SEQ | 3 | 3 | Sharpness Equalizer Characteristic | | | 03 | | | | | | | | |
| | 07 | SHG | 7 | 0F | Sharpness Gain Control | 50/60*TV/Video/DVD | | | | | 06 | 07 | 06 | 06 | 08 | 06 |
| | 08 | YOL | 1F | 3F | Y-Output Level Control | | | 1E | | | | | | | | |
| | 09 | BSP | 0 | 3 | Black Stretch Start Point Changing | | | 00 | | | | | | | | |
| | 0A | COL | 10 | 3F | Cb/Cr Output Level Control | | | 13 | | | | | | | | |
| | 0B | DCR | 0 | 3 | DC Restoration Ratio Adjustment | | | 00 | | | | | | | | |
| | 0C | BF0 | 1 | 3 | BPF/TQF F0 Adjustment | | | 01 | | | | | | | | |
| | 0D | BFQ | 2 | 3 | BPF/TQF Q Adjustment | | | 02 | | | | | | | | |
| | 0E | FSW | 1 | 1 | BPF/TQF Switch | | | 01 | | | | | | | | |
| | 0F | SDT | 1 | 1 | SECAM Double Trap Switch | | | 01 | | | | | | | | |
| | 10 | LPF | 1 | 1 | Y/Cb/Cr LPF Switch | | | 01 | | | | | | | | |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | Multi Comb | 3DComb | S-Input | Others | Video | DVD |
| YCT | 11 | YDL | 6 | 0F | Y-DL Time Adjustment | 2Dcomb/3Dcomb/S-input/others | | | 06 | 06 | 06 | 06 | | |
| | 12 | BO1 | 7 | 0F | Cb Offset1 Adjustment (main route) | | | 07 | | | | | | |
| | 13 | RO1 | 7 | 0F | Cr Offset1 Adjustment | | | 07 | | | | | | |
| | 14 | CDF | 0 | 7 | V Count Down Frequency Switch | forced 50Hz for no signal | | 00 | | | | | | |
| | 15 | CDM | 0 | 3 | V Count Down Judge Switch | | | 00 | | | | | | |
| | 16 | AFC | 0 | 3 | AFC Sensitivity Switch | (TV/)Video/DVD | | | | | | | 00 | 00 |
| | 17 | MVM | 1 | 1 | Macrovision Mask + AFC Mask | | | 01 | | | | | | |
| | 18 | SRY | 7 | 0F | SECAM R-Y Black Adjustment | | | 07 | | | | | | |
| | 19 | SBY | 1 | 0F | SECAM B-Y Black Adjustment | | | 01 | | | | | | |
| | 1A | BEL | 2 | 3 | SECAM BELL/HPF Switching | | | 02 | | | | | | |
| | 1B | BLF | 0 | 1 | BELL f0 Adjustment | | | 00 | | | | | | |
| | 1C | SVI | 0 | 1 | SECAM V-ID Switch | | | 00 | | | | | | |
| | 1D | SGP | 0 | 3 | SECAM Gate Position Adjustment | | | 00 | | | | | | |
| | 1E | SID | 1 | 1 | SECAM Sensitivity Switch | except SECAM | | 01 | | | | | | |
| | 1F | SIH | 0 | 1 | SECAM Inhibition Switch | | | 00 | | | | | | |
| | 20 | STP | 0 | 1 | Y Black Level Setup for PAL Plus | | | 00 | | | | | | |
| | 21 | 3NR | 1 | 1 | 3D NR Operation On/Off | | | 01 | | | | | | |
| | 22 | BW6 | 1 | 1 | 3D NR for 60Hz Non-Bust Signal On/Off | | | 01 | | | | | | |
| | 23 | WSH | 0 | 3 | Sharpness Gain Step for Noise Reduction | | | 00 | | | | | | |
| | 24 | WCO | 0 | 3 | Cb/Cr Output Level Step for Noise Reduction | | | 00 | | | | | | |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Common |
|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | |
| SYN | 00 | MAT | 1 | 3 | Select Type of Matrix Conversion | | CXA2151 | 00 |
| | 01 | VFR | 1 | 1 | Select Frequency of Dummy Sync Output | | | 01 |
| | 02 | VTC | 3 | 3 | Sets the V Sync Separation Time Constant | | | 03 |
| | 03 | HWD | 0 | 3 | Sets the SELH_OUT Output Pulse Width | | | 00 |
| | 04 | HSL | 0 | 1 | Sets the Sync Separation Method | | | 00 |
| | 05 | HTC | 0 | 1 | Sets the H Sync Separation Time Constant of YG IN input | | | 00 |
| | 06 | HMA | 1 | 1 | Sets Whether or not to add Hsync Within Vsync at SELH OUT | | | 01 |
| | 07 | MAC | 1 | 1 | Switch for Eliminating the Macrovision signal of the 525P Signal | | | 01 |
| | 08 | GSL | 1 | 3 | Selects the Gain or Mute of the Signal Output to SELCR OUT | | | 01 |
| | 09 | CBG | 7 | 0F | SELCB OUT Gain Control | | | 07 |
| | 0A | CRG | 7 | 0F | SELCR OUT Gain Control | | | 07 |
| | 0B | YG | 7 | 0F | SELY OUT Gain Control | | | 07 |
| | 0C | HFR | 1 | 3 | Select the Frequency of the Dummy Sync Output to SELH OUT | | | 01 |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | Dynamic | Standard/-Drama | Hi-Fine/-Soft | Dyna bsw | Drama bsw | Soft bsw |
| AP2 | 00 | BBS | 3 | 0F | Bass Boost Setting | | NJW1139 | 03 | | | | | | |
| | 01 | BCB | 0 | 1 | Boost/Cut Sub-Bass | | | 00 | | | | | | |
| | 02 | SBS | 0 | 3 | Sub-Bass Setting | | | 00 | | | | | | |
| | 03 | BCT | 0 | 1 | Boost/Cut Sub-Treble | | | 00 | | | | | | |
| | 04 | STS | 0 | 3 | Sub-Treble Setting | | | 00 | | | | | | |
| | 05 | AGL | 0 | 3 | AGC Level Setting | | | 00 | | | | | | |
| | 06 | BSW | 0 | 1 | Bass Boost Switch | | | 00 | | | | | | |
| | 07 | BAS | 14 | 1F | Bass Sound mode Control | S. Mode but personal with BBS ON/OFF | | | 14 | 10 | 10 | 12 | 01 | 01 |
| | 08 | TRE | 16 | 1F | Treble Sound mode Control | S. Mode but personal with BBS ON/OFF | | | 16 | 16 | 10 | 16 | 16 | 10 |
| | 09 | BBE | 48 | FF | BBE Sound mode Control | S. Mode but personal with BBS ON/OFF | | | 47 | 39 | 00 | 47 | 39 | 00 |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Common |
|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | |
| MSP | 00 | WST | 15 | FF | W/G Stereo Threshold | | MSP3415D | 15 |
| | 01 | WBT | EC | FF | W/G Bilingual Threshold | | | EC |
| | 02 | WLL | 5 | FF | W/G Monaural Threshold | | | 05 |
| | 03 | WAC | 1 | 0F | W/G Agreement Count | | | 01 |
| | 04 | WDL | 30 | FF | W/G Search Delay | | | 30 |
| | 05 | NDL | 20 | FF | NICAM Search Delay | | | 20 |
| | 06 | SDL | 10 | FF | Stereo Status Read Delay | | | 10 |
| | 07 | AGC | 1 | 1 | AGC Switch Auto/Constant | | | 01 |
| | 08 | REL | 28 | 3F | AGC Gain at Constant Mode | | | 28 |
| | 09 | CRM | 0 | 1 | Carrier Muting On/Off | | | 00 |
| | 0A | ACO | 1 | 1 | Audio Clock Out On/Off | | | 01 |
| | 0B | FP | 1B | 7F | FM Prescale for Non-M System | | | 1B |
| | 0C | FPM | 32 | 7F | FM Prescale for M system | | | 32 |
| | 0D | FH | 36 | 7F | FM prescale for HDEV | | | 36 |
| | 0E | FHM | 65 | 7F | FM prescale for HDEV and M | | | 65 |
| | 0F | WGP | 1C | 7F | W/G Prescale | | | 1C |
| | 10 | NIP | 7F | 7F | NICAM Prescale | | | 7F |
| | 11 | ERR | 50 | FF | Auto FM Switch Threshold | | | 50 |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | Dynamic | Standard-/Drama | Hi-Fine/-Soft | Personal | |
| LTI | 00 | LDH | 1 | 1 | Histogram segment Selection | | TDA9178 | 01 | | | | | |
| | 01 | CFS | 1 | 1 | Contour Filter Selection | | | 01 | | | | | |
| | 02 | WLB | 0 | 1 | Letterbox Window Switch | | | 00 | | | | | |
| | 03 | VDC | 1 | 1 | Video Dependent Coring | Picture Mode | | | 01 | 01 | 01 | 01 | |
| | 04 | DEM | 0 | 1 | Demonstration Mode | | | 00 | | | | | |
| | 05 | CDP | 4 | 07 | Luminance Delay | | | 04 | | | | | |
| | 06 | OSP | 0 | 1 | Overrule Smart Peaking | | | 00 | | | | | |
| | 07 | WPO | 0 | 1 | White Point Stretch Off | | | 00 | | | | | |
| | 08 | DSK | 0 | 1 | Skin Tone Switch | Picture Mode | | | 00 | 00 | 00 | 00 | |
| | 09 | ASK | 0 | 1 | Skin Tone Angle Selection | | | 00 | | | | | |
| | 0A | WSK | 0 | 1 | Skin Tone Width Selection | | | 00 | | | | | |
| | 0B | SSK | 0 | 1 | Skin Tone Size Selection | | | 00 | | | | | |
| | 0C | DGR | 1 | 1 | Green Enhancement Switch | Picture Mode | | | 01 | 01 | 00 | 01 | (except KV-DR29M39) |
| | | | | | | | | | 00 | 00 | 00 | 00 | (only KV-DR29M39) |
| | 0D | DGT | 7 | 7 | Threshold of Green Enhancement Switch | | | 07 | | | | | |
| | 0E | GGR | 0 | 1 | Green Enhancement Gain | | | 00 | | | | | |
| | 0F | WGR | 0 | 1 | Green Enhancement Width | | | 00 | | | | | |
| | 10 | SGR | 0 | 1 | Green Enhancement Size | | | 00 | | | | | |
| | 11 | DBL | 0 | 1 | Blue Stretch Switch | | | 00 | | | | | |
| | 12 | GBL | 0 | 1 | Blue Stretch Gain Selection | | | 00 | | | | | |
| | 13 | SBL | 0 | 1 | Blue Stretch Size Selection | | | 00 | | | | | |
| | 14 | CDS | 1 | 1 | Color Dependent Sharpness | Picture Mode | | | 01 | 01 | 00 | 01 | |
| | 15 | CST | 7 | 7 | Threshold of Color Dependent Sharpness | | | 07 | | | | | |
| | 16 | CTI | 1 | 1 | Color Transient Improvement | Picture Mode | | | 01 | 01 | 00 | 00 | |
| | 17 | BON | 0 | 1 | Black Offset Compensation | Picture Mode | | | 00 | 00 | 00 | 00 | |
| | 18 | BTD | 0 | 3F | Adaptive Black Strecth | Picture Mode | | | 00 | 00 | 00 | 00 | |
| | 19 | NLD | 15 | 3F | Non-Linearity Amplifier | Picture Mode | | | 15 | 15 | 00 | 15 | |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | TV | Video | Dynamic | Standar-d/Drama | Hi-Fine/-Soft | Personal |
| LTI | 1A | NLW | 7 | 7 | Step Width of Non-Linearity Amplifier | | | 07 | | | | | | |
| | 1B | VGD | 1F | 3F | Variable Gamma | Picture Mode | | | | | 1F | 1F | 1F | 1F |
| | 1C | VGW | 0 | 7 | Step Width of Variable Gamma | | | 00 | | | | | | |
| | 1D | PKD | 3F | 3F | Peaking Amplitude | Picture Mode | | | | | 3F | 2B | 0E | 2B |
| | 1E | PKW | 8 | 0F | Step Width of Peaking Amplitude | | | 08 | | | | | | |
| | 1F | SPD | 0 | 3F | Steepness Correction | Picture Mode | | | | | 00 | 00 | 00 | 00 |
| | 20 | CRD | 1B | 3F | Coring Level | Picture Mode | | | | | 1B | 1B | 00 | 1B |
| | 21 | CRW | 9 | 0F | Step Width of Coring Level | | | 09 | | | | | | |
| | 22 | CRO | 6 | 0F | Coring Level Offset for Video Mode | | | 06 | | | | | | |
| | 23 | LWD | 1F | 3F | Line Width Correction | | | 1F | | | | | | |
| | 24 | SNM | 0 | 7 | S/N Mode Under Unreliable S/N Condition | | | 00 | | | | | | |
| | 25 | SNC | 3 | 0F | S/N Ratio Average Counter | TV/Video | | | 03 | 03 | | | | |
| | 26 | FMC | 2 | 0F | Feature Mode Matching Counter | | | 02 | | | | | | |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | TV | Video | NRmode0 | NRmode1 | NRmode2 | NRmode3 | Dynamic | Standard-/Drama | Hi-Fine/-Soft | Personal |
| 3CM | 00 | NRM | 0 | 3 | Noise Reduction Operation Mode | | UPD64083 | 00 | | | | | | | | | | |
| | 01 | YCO | 0E | 0F | Y/C Signal Output Selection | | | 0D | | | | | | | | | | |
| | 02 | SYC | 1 | 3 | System Clock Selection | | | 01 | | | | | | | | | | |
| | 03 | STD | 0 | 3 | Standard/Non-Standard Operation Selection | | | 00 | | | | | | | | | | |
| | 04 | MSS | 0 | 3 | Inter-Frame/Inter-Line Operation Selection | | | 00 | | | | | | | | | | |
| | 05 | KIL | 3 | 3 | Killer/Non-Killer Operation Selection | | | 03 | | | | | | | | | | |
| | 06 | ECS | 1 | 3 | External C-Sync Input Selection | | | 01 | | | | | | | | | | |
| | 07 | CPP | 2 | 3 | ADC Input Level & Clump Pulse Width Selection | | | 00 | | | | | | | | | | |
| | 08 | HDP | 5 | 7 | Horizontal Phase Adjustment | | | 05 | | | | | | | | | | |
| | 09 | CDL | 4 | 7 | C-Signal Delay Adjustment | | | 04 | | | | | | | | | | |
| | 0A | DYC | 2 | 0F | DY Delection Coring Level Adjustment | NR Mode (0-3) | | | | | 02 | 02 | 02 | 04 | | | | |
| | 0B | DYG | 0A | 0F | DY Delection Gain Ajustment | NR Mode (0-3) | | | | | 0A | 0A | 0A | 0A | | | | |
| | 0C | DCC | 5 | 0F | DC Detection Coring Level Adjustment | NR Mode (0-3) | | | | | 05 | 03 | 03 | 05 | | | | |
| | 0D | DCG | 5 | 0F | DC Detection Gain Adjustment | NR Mode (0-3) | | | | | 05 | 0A | 0A | 05 | | | | |
| | 0E | YNR | 1 | 0F | YNR Non-Linear Filter Setup | | | 01 | | | | | | | | | | |
| | 0F | CNR | 1 | 0F | CNR Non-Linear Filter Setup | | | 01 | | | | | | | | | | |
| | 10 | WSC | 1 | 3 | Noise Detectin Coring Adjustment | | | 01 | | | | | | | | | | |
| | 11 | VTH | 1 | 3 | Hysteresis Selection for H-Sync Non-Standard | TV/Video | | | 01 | 01 | | | | | | | | |
| | 12 | VTR | 1 | 3 | Sensitivity Selection for H-Sync Non-Standard | TV/Video | | | 01 | 01 | | | | | | | | |
| | 13 | LDR | 2 | 3 | Sensitivity Selection for Frame-Sync Non-Standard | TV/Video | | | 02 | 01 | | | | | | | | |
| | 14 | VAP | 3 | 7 | Gain Adjustment for Vertical Shape Correction | Picture Mode | | | | | | | | | 03 | 00 | 00 | 00 |
| | 15 | VAI | 0C | 1F | Vanishing Adjustment for Vertical Shape Correction | Picture Mode | | | | | | | | | 0C | 00 | 00 | 00 |
| | 16 | YPF | 3 | 3 | Center Frequency Selection for Y-Peaking BPF | Picture Mode | | | | | | | | | 03 | 03 | 03 | 03 |
| | 17 | YPG | 8 | 0F | Gain Adjustment for Y-Peaking BPF | Picture Mode | | | | | | | | | 08 | 08 | 08 | 08 |
| | 18 | VSE | 0A | 0F | Line Comb Filter Setup | | | 0A | | | | | | | | | | |
| | 19 | CCN | 0 | 1 | C-Signal Split Filter Switch | | | 00 | | | | | | | | | | |
| | 1A | COS | 0 | 1 | C-Signal Dealy Switch at Nosie Reduction | | | 00 | | | | | | | | | | |
| | 1B | SDC | 0 | 1 | DC Detection Sensitivity Switch | | | 00 | | | | | | | | | | |
| | 1C | SDY | 1 | 1 | DY Detection Lower-Level Sensitivity Switch | | | 01 | | | | | | | | | | |
| | 1D | YHC | 0 | 3 | Y-Signal Higher-Level Coring Selection | Picture Mode | | | | | | | | | 00 | 00 | 00 | 00 |
| | 1E | YHG | 0 | 1 | Y-Signal Higher-Lever Gain Switch | Picture Mode | | | | | | | | | 00 | 00 | 00 | 00 |
| | 1F | SHT | 0 | 0F | Non-Standard Detection & H/V Counter Test Bits | | | 00 | | | | | | | | | | |
| | 20 | CLK | 8 | 0F | Clock Test Bits | | | 08 | | | | | | | | | | |
| | 21 | PLL | 0D | 0F | PLL Filter Setup | | | 0D | | | | | | | | | | |
| | 22 | KRF | 3 | 0F | Killer Detection Reference Adjustment | | | 03 | | | | | | | | | | |
| | 23 | HSL | 0C | 0F | H-Sync Slice Level Adjustment | | | 0C | | | | | | | | | | |
| | 24 | VSL | 8 | 0F | V-Sync Slice Level Adjustment | | | 08 | | | | | | | | | | |
| | 25 | BPS | 4 | 0F | Internal Burst Gate Start Position Adjustment | | | 04 | | | | | | | | | | |
| | 26 | BPW | 0A | 0F | Internal Burst Gate Width Adjustment | | | 0A | | | | | | | | | | |
| | 27 | ADC | 3 | 3 | ADC Clock Delay Selection | | | 03 | | | | | | | | | | |
| | 28 | APD | 1 | 1 | ADC Power-Down Switch | | | 01 | | | | | | | | | | |
| | 29 | SPD | 2 | 3 | Memory Power-Down Switch | | | 00 | | | | | | | | | | |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | DVD PROG | 50 | 60 | TV | Video |
| 2CM | 00 | FUN | 3 | 3 | Function | | TC90A69N | 03 | | | | | |
| | 01 | YCM | 0 | 3 | Y/C Separator | | | 00 | | | | | |
| | 02 | CNR | 0 | 3 | CNR K | | | 00 | | | | | |
| | 03 | LIM | 0 | 3 | CNR Limit | | | 00 | | | | | |
| | 04 | CPF | 0 | 1 | C-LPF | | | 00 | | | | | |
| | 05 | SLP | 0 | 1 | SelC-LPF | | | 00 | | | | | |
| | 06 | YFO | 0 | 1 | Y-P fo | TV/Video | | | | | | 00 | 00 |
| | 07 | YPG | 1 | 3 | Y-EQ Gain | TV/Video | | | | | | 02 | 02 |
| | 08 | YPL | 1 | 3 | Y-EQ/N.C Limit | TV/Video | | | | | | 00 | 00 |
| | 09 | CLP | 0 | 1 | Pds.Clip | | | 00 | | | | | |
| | 0A | YPF | 1 | 1 | Y-LPF | TV/Video | | | | | | 00 | 00 |
| | 0B | VEG | 3 | 7 | V-Emph Gain | | | 03 | | | | | |
| | 0C | VEN | 3 | 7 | V-Emph N.L | | | 03 | | | | | |
| | 0D | VEC | 2 | 3 | V-Emph Core | | | 02 | | | | | |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | DVD PROG | 50 | 60 | TV | Video | NR0, NTSC | NR0, others | NR1, NTSC | NR1, others | NR2, NTSC | NR2, others | NR3, NTSC | NR3, others |
| 3NR | 00 | WHC | 2F | 3F | PLL Divider Setting (PAL=47, NTSC=44) | 50/60 | TC9OA90F | | | 2F | 2C | | | | | | | | | | |
| | 01 | NIQ | 00 | 01 | U/V Input Polarity | | | 01 | | | | | | | | | | | | | |
| | 02 | CLW | 1E | 3F | A/D Clamp Pulse Width | 50/60 | | | | 0D | 0D | | | | | | | | | | |
| | 03 | CLP | 50 | FF | A/D Clamp Pulse Phase | 50/60 | | | | 50 | 50 | | | | | | | | | | |
| | 04 | YBW | 8A | FF | Y H Blanking Width | 50/60 | | | | 8A | 8A | | | | | | | | | | |
| | 05 | YBL | 00 | 0F | Y Blanking Level Adjustment | | | 00 | | | | | | | | | | | | | |
| | 06 | YBO | 00 | 01 | Internal Y H Blanking On/Off | | | 00 | | | | | | | | | | | | | |
| | 07 | MUT | 00 | 01 | Signal Output Muting | | | 00 | | | | | | | | | | | | | |
| | 08 | YBS | 28 | 7F | Y H Blanking Start Point | 50/60 | | | | 28 | 28 | | | | | | | | | | |
| | 09 | CBW | 8A | FF | U/V H Blanking Width | 50/60 | | | | 8A | 8A | | | | | | | | | | |
| | 0A | CBS | 28 | 7F | U/V H Blanking Start Point | 50/60 | | | | 28 | 28 | | | | | | | | | | |
| | 0B | CBO | 00 | 01 | Internal U/V H Blanking On/Off | | | 00 | | | | | | | | | | | | | |
| | 0C | VBL | 00 | 0F | V H Blanking Level Adjustment | | | 00 | | | | | | | | | | | | | |
| | 0D | UBL | 00 | 0F | U H Blanking Level Adjustment | | | 00 | | | | | | | | | | | | | |
| | 0E | CDL | 00 | 07 | U/V Output Delay | 50/60 | | | | 00 | 00 | | | | | | | | | | |
| | 0F | YDL | 00 | 07 | Y Output Delay | 50/60 | | | | 00 | 00 | | | | | | | | | | |
| | 10 | PVI | 00 | 01 | VD Input Polarity | | | 00 | | | | | | | | | | | | | |
| | 11 | PHI | 00 | 01 | HD Input Polarity | | | 00 | | | | | | | | | | | | | |
| | 12 | HDW | 10 | 3F | HD Pulse Width | | | 10 | | | | | | | | | | | | | |
| | 13 | PVO | 01 | 01 | VD Output Polarity | | | 00 | | | | | | | | | | | | | |
| | 14 | PHO | 01 | 01 | HD Output Polarity | | | 00 | | | | | | | | | | | | | |
| | 15 | HST | 1B | FF | HD Out Pulse Start Position | | | 30 | | | | | | | | | | | | | |
| | 16 | VDL | 00 | 0F | VD Out Pulse Start Position | | | 00 | | | | | | | | | | | | | |
| | 17 | VDW | 03 | 0F | VD Out Pulse Width | | | 03 | | | | | | | | | | | | | |
| | 18 | NDE | 00 | 0F | Noise Detection Point | | | 00 | | | | | | | | | | | | | |
| | 19 | NVP | 02 | 0F | Noise Detect Line | | | 02 | | | | | | | | | | | | | |
| | 1A | NDS | 02 | 03 | Noise Detection Sensitivity | | | 03 | | | | | | | | | | | | | |
| | 1B | HOF | 00 | 01 | H Reference Pulse On/Off (ON=0) | | | 00 | | | | | | | | | | | | | |
| | 1C | NDW | 09 | 0F | Noise Detect Gate Width | | | 09 | | | | | | | | | | | | | |
| | 1D | UOS | 00 | 07 | U Offset Level | | | 04 | | | | | | | | | | | | | |
| | 1E | POT | 00 | 03 | Output Port 0/1 Control | 50/60 | | | | 00 | 00 | | | | | | | | | | |
| | 1F | UVF | 00 | 01 | UV Frag Polarity | | | 00 | | | | | | | | | | | | | |
| | 20 | APC | 00 | 01 | AP Check polarity | | | 00 | | | | | | | | | | | | | |
| | 21 | DAP | 00 | 01 | DAC Power Save (ON=1) | | | 00 | | | | | | | | | | | | | |
| | 22 | YLV | 08 | 0F | Y NR Level | NR0/1/2/3*NTSC/others | | | | | | | | 00 | 00 | 0D | 0D | 0E | 0E | 08 | 08 |
| | 23 | YST | 00 | 01 | Y Standard Detection Off/On | | | 00 | | | | | | | | | | | | | |
| | 24 | YNT | 01 | 01 | Y NTSC Standard Detection | | | 01 | | | | | | | | | | | | | |
| | 25 | YPL | 01 | 01 | Y PAL Standard Detection | | | 01 | | | | | | | | | | | | | |
| | 26 | YMV | 00 | 01 | Y Moving Detection Filter (ON=0) | | | 00 | | | | | | | | | | | | | |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | 50 | 60 | NR0, NTSC | NR0, others | NR1, NTSC | NR1, others | NR2, NTSC | NR2, others | NR3, NTSC | NR3, others |
| 3NR | 27 | YCR | 08 | 1F | Y Moving Detection Coring Level | NR0/1/2/3*NTSC/others | | | | | 00 | 00 | 07 | 07 | 0A | 0A | 00 | 00 |
| | 28 | VOS | 00 | 07 | V Offset Level | | | 04 | | | | | | | | | | |
| | 29 | YMG | 01 | 03 | Y Moving Detection Gain | NR0/1/2/3*NTSC/others | | | | | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| | 2A | YEG | 01 | 01 | Y Moving Detection On (ON=1) | | | 01 | | | | | | | | | | |
| | 2B | YEL | 06 | 0F | Y Edge Moving Detection Sensitivity | NR0/1/2/3*NTSC/others | | | | | 03 | 03 | 03 | 03 | 03 | 03 | 04 | 04 |
| | 2C | YLM | 06 | 7F | Y NR Feed Back Limit Level | NR0/1/2/3*NTSC/others | | | | | 00 | 00 | 04 | 04 | 08 | 08 | 03 | 03 |
| | 2D | CLV | 0A | 0F | C NR Level | NR0/1/2/3*NTSC/others | | | | | 00 | 00 | 09 | 09 | 0B | 0B | 08 | 08 |
| | 2E | CNT | 01 | 01 | Relate C NR to YSTDN | | | 01 | | | | | | | | | | |
| | 2F | CPL | 01 | 01 | Relate C NR to YSTDP | | | 01 | | | | | | | | | | |
| | 30 | CMG | 01 | 03 | C Moving Detection Gain | NR0/1/2/3*NTSC/others | | | | | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| | 31 | CCR | 03 | 1F | C Moving Detection Level | NR0/1/2/3*NTSC/others | | | | | 00 | 00 | 06 | 06 | 0C | 0C | 00 | 00 |
| | 32 | CLM | 06 | 7F | C NR Feed Back Limit Level | NR0/1/2/3*NTSC/others | | | | | 00 | 00 | 05 | 05 | 05 | 05 | 04 | 04 |
| | 33 | NVS | 14 | FF | NR Vertical Start Line | 50/60 | | | 14 | 14 | | | | | | | | |
| | 34 | NHS | 10 | 7F | NR Horizontal Start Position | 50/60 | | | 10 | 10 | | | | | | | | |
| | 35 | NVE | 90 | FF | NR Vertical end Line (offset:+100d) | 50/60 | | | F4 | F4 | | | | | | | | |
| | 36 | NHE | 4E | 7F | NR Horizontal end Position | 50/60 | | | 78 | 78 | | | | | | | | |
| | 37 | YNG | 01 | 03 | Y Coring Gain | 50/60 | | | 01 | 01 | | | | | | | | |
| | 38 | COR | 00 | 01 | Coring/Through (Coring=0) | 50/60 | | | 00 | 00 | | | | | | | | |
| | 39 | LPF | 00 | 01 | LPF On/Off (On=0) | | | 01 | | | | | | | | | | |
| | 3A | YLT | 06 | 0F | Y Coring Limit Level | 50/60 | | | 06 | 06 | | | | | | | | |
| | 3B | YNC | 08 | 0F | Y Coring Offset Level | NR0/1/2/3*NTSC/others | | | | | 08 | 08 | 0C | 0C | 0E | 0E | 08 | 08 |
| | 3C | YCO | 01 | 01 | Y Coring Off (On=1) | 50/60 | | | 00 | 00 | | | | | | | | |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | |
|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | DVD PROG |
| TXT | 00 | TXH | 2A | FF | Teletext Horizontal Position for Phiilips | | SAA5264 | 2A | |
| | 01 | TXV | 27 | 3F | Teletext Vertical Position for Philips | | | 27 | |
| | 02 | THD | 00 | 7F | Teletext H-Sync Active Edge Shift | | | 00 | |
| | 03 | TVD | 00 | 7F | Teletext V-Sync Active Edge Shift | | | 00 | |
| | 04 | HPL | 01 | 01 | Teletext H-Sync Polarity Configuration | | | 01 | |
| | 05 | VPL | 00 | 01 | Teletext V-Sync Polarity Configuration | | | 00 | |
| | 06 | FPL | 01 | 01 | Teletext Field Polarity Configuration | | | 01 | |
| | 07 | FMD | 00 | 03 | Teletext Fastext/TOP Force Mode | | | 00 | |
| | 08 | TBR | 08 | 0F | Teletext RGB Brightness | | | 08 | |
| | 09 | NOP | 01 | 0F | Teletext National Option Table Configuration | | | 01 | |
| | 0A | TCH | 01 | 03 | Teletext Twisted Character Set Configuration | | | 01 | |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | |
|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | DVD PROG |
| OPM | 00 | OSH | 12 | 3F | OSD H Position | TV/Video | CXP750096 | 12 | 12 |
| | 01 | FW1 | 0 | 3F | OSD ODD/EVEN Field Window Setup#1 | | | 00 | |
| | 02 | FW2 | 3 | 3F | OSD ODD/EVEN Field Window Setup#2 | | | 03 | |
| | 03 | COM | 0 | 03 | Comb Operation Selection | | | 00 | |
| | 04 | APC | 1 | 1 | APC Switch | | | 01 | |
| | 05 | TSY | 0 | 03 | TV System Selection Under Searching With Auto TV System | | | 00 | |
| | 06 | MUT | 0 | 1 | No Signal Mute | | | 00 | |
| | 07 | AFM | 1 | 1 | Auto FM Switch | | | 01 | |
| | 08 | TVO | 3 | 7 | V-Angle Correction to Picture Rotation | | | 03 | |
| | 09 | DBL | 0 | 1 | Disable Blueback Function | | | 00 | |
| | 0A | SSO | 1 | 3 | Speed CH Search Selection | | | 01 | |
| | 0B | TRP | 0 | 3F | MPEG/JPEG Noise Reduction for each input | | | 00 | |
| | 0C | SCH | 7F | 7F | CH Selection for Shipping Condition | NTSC Only | | 7F | |
| | 0D | SCA | 1 | 1 | Cable/Air Selection for Shipping Condition | NTSC Only | | 01 | |
| | 0E | VSN | 1 | 1 | Enable Noise Reduction in Video Mode | | | 01 | |
| | 0F | PSQ | 0 | 1 | Power Seq for Continuos Sircs Detection Spec | | | 00 | |
| | 10 | POR | 0 | 1 | Power On Reset Detection From YCT | | | 00 | |

| TVG | Functionality | | Initial | Range | Function | Table & Note | Device Name | Initial Value (detailed) | |
|---|---|---|---|---|---|---|---|---|---|
| Category | No | Name | | | | | | Common | DVD PROG |
| OPB | 00 | OP1 | E7 | FF | Optional Bits 1 (refer page 34) | | Option-Bits | FF | |
| | 01 | OP2 | 17 | FF | Optional Bits 2 (refer page 34) | | | 94 | |
| | 02 | OP3 | 00 | FF | Optional Bits 3 (refer page 34) | | | 00 | |

Abbreviation

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| VC | = | V-Compressed Mode | NC | = | Non-compressed Mode | ECO | = | Eco Mode |
| Sur | = | Surround | NR | = | Noise Reduction | FF | = | Flicker Free |
| R4 | = | Real 4 | PR | = | Progressive | | | |

**NOTE**

- shaded items are fixed data.
- no data.
- Standard data listed on the Adjustment Item Table are reference values, therefore it may be different for each model and for each mode.
- Note for Different Data: The data indicated in the initial colomn are the standard data values written on the microprocessor. Therefore, the data values of the modes are stored respectively in the memory. In case of a device replacement, adjustment by rewriting the data value is necessary for some items.

**OPTION NOTE**

**COM** Comb Operation Selection
00 = Auto
01 = No comb,
02 = Forced 2D comb,
03 = Forced 3D comb,

**TSY** TV System Selection for Auto TV System — 00 = B/G, 01 = I, 10 = D/K, 11 = M

**SSO** Speed CH Search Selection — 00 = normal, 01 = 4 times, 10 = 6 times, 11 = 8 times

**TRP** MPEG/JPEG Noise Reduction

| Input | – | – | TV | Video 1 | Video 2 | Video 3 | Video 4 | DVD |
|---|---|---|---|---|---|---|---|---|

**OP1 Items**

| Item | TOP | NICAM | HDEV | Thai Bil. | Sleep Mode | DVD Input | AV Input | | HEX |
|---|---|---|---|---|---|---|---|---|---|
| **KV-DR29M39** | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | EF |
| **KV-DR29M63** | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 6F |
| **KV-DR29M69** | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | EF |
| **KV-DR29M89** | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0F |

**AV Input** 00 = no AV Input, 01 = 1 AV Input, 10 = 3 AV Input, 11 = 4 AV Input

**OP2 Items**

| Item | PiP Models | Korean Stereo | Vid NTSC3.58 | A-TV sys | US ST | Chinese | Arabic | Thai | HEX |
|---|---|---|---|---|---|---|---|---|---|
| **KV-DR29M39** | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 97 |
| **KV-DR29M63** | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 17 |
| **KV-DR29M69** | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 97 |
| **KV-DR29M89** | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 87 |

PiP Models — PiP models 0 = No PiP, 1 = PiP

Korean Stereo* — Korean Stereo 0 = disabled, 1 = enabled

Video NTSC3.58* — Video Color System 0 = Multi System, 1 = Single System (NTSC3.58)

A-TVsys — Auto TV System in Auto Program 0 = Disabled, 1 = enabled

US ST* — USA Stereo 0 = disabled, 1 = enabled

OSD Language (Multi)
000 = English only
010 = English & Arabic
001 = English & Thai
011 = English, Arabic & Thai
100 = English & Chinese
110 = English, Chinese & Arabic
101 = English, Chinese & Thai
111 = English, Chinese, Arabic & Thai

OSD Language (NTSC)
000 = English only
001 = English & Korean
010 = English & Taiwanese
011 = English, Taiwanese & Korean

**OP3 Items**

| Item | N/A | N/A | N/A | N/A | N/A | N/A | Initial menu | Forced 50/60 | HEX |
|---|---|---|---|---|---|---|---|---|---|
| **KV-DR29M39** | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 02 |
| **KV-DR29M63** | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 02 |
| **KV-DR29M69** | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 02 |
| **KV-DR29M89** | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 02 |

Forced 50/60* Forced to 50/60Hz during no signal condition 0 = 60Hz, 1 = 50Hz
Initial Menu Activate initial setup or not 0 = Not active 1 = Active

*APPLICABLE FOR NTSC MODELS ONLY

**NOTE**

| No. | Modes | Details | Entry Conditions |
|---|---|---|---|
| 1. | 50NC/60NC | Signal 50/60Hz Non-Compressed mode. | Input 50Hz(PAL)/60Hz(NTSC), wide mode OFF (TV/ video mode) |
| 2. | 50VC/60VC | Signal 50/60Hz V-Compressed mode. | Input 50Hz(PAL)/60Hz(NTSC), wide mode ON (TV/ Video mode) |
| 3. | ECO ON/OFF NC | Eco modeON/OFF Non-Compressed mode. | ECO mode ON/OFF, wide mode OFF |
| 4. | ECO ON/OFF VC | ECO mode ON/OFF V-Compressed mode. | ECO mode ON/OFF, wide mode ON |
| 5. | 50/60 DVD | Signal 50/60Hz Digital Video Disk | Input 50Hz(PAL)/60Hz(NTSC), DVD |
| 6. | Multi Comb | Multi Comb Filter | Input PAL, NTSC 3.58, Service mode category OPM 03 COM 01 (Multi Model only) |
| 7. | 3D Comb | 3 Dimensional Comb Filter | Input NTSC 3.58 only, Service mode category OPM 03 COM 02 (NTSC model only) |
| 8. | S-Input | S-Video Input | Connect S-Video Cable, video mode |
| 9. | NR0 | | 3D NR mode OFF |
| 10. | NR3 | | 3D NR mode ON and signal level is poor. |
| 11. | NR1 | | 3D NR mode ON and signal level is bad. |
| 12. | NR2 | | 3D NR mode ON and signal level is worst. |

## 6-3. PICTURE QUALITY ADJUSTMENTS

Adjustment condition

1. Set to service mode.
2. Set picture mode to HI-FINE.
3. Set the following condition.

ECO MODE : OFF
WIDE MODE : OFF
DRC-MF : DRC1250
3D-NR : ON

Input signal : Video Color Bar
RF Color Bar

MEASUREMENT POINT

A board CN4301
① R-OUT
⑤ B-OUT

CAUTION

After Adjustment, these adjustment parameters must be recovered to the original condition.

Original Condition

SAJ 00 PIC 28 HI-FINE

| | 50 TV | 50 VIDEO | 60 TV | 60 VIDEO |
|---|---|---|---|---|
| 0E CLO | 06 | 08 | 09 | 09 |
| 1O HUO | 05 | 03 | 07 | 06 |

### 6-3(1). DRIVE ADJUSTMENT (VIDEO MODE)

(i) SUB CONTRAST (PAL)

Input signal : PAL Color bar (100%) to Video
Picture : HI-FINE mode
Condition : SAJ 00 PIC 3F
SAJ 02 COL 00
JGL 01 RGB 04
Adjusting parameter:
YCT 04 SCT

(ii) SUB CONTRAST (NTSC)

Input signal : NTSC Color Bar (75%) to Video
Picture : HI-FINE mode
Condition: SAJ 00 PIC 3F
SAJ 02 COL 00
JGL 01 RGB 04
Adjusting parameter :
YCT 04 SCT

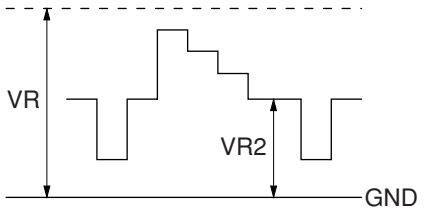
### 6-3(2). DRIVE ADJUSTMENT (RF MODE)

(i) SUB CONTRAST (PAL)

Input signal : PAL Color bar (100%) to Video
Condition : SAJ 00 PIC 3F
SAJ 02 COL 00
JGL 01 RGB 04
Adjusting parameter:
YCT 04 SCT

(ii) NTSC (RF MODE)

Input signal : NTSC Color Bar (75%) to Video
Condition: SAJ 00 PIC 3F
SAJ 02 COL 00
JGL 01 RGB 04
Adjusting parameter :
YCT 04 SCT




VR1 - VR2 = ΔVR = 2.35 ± 0.07 (Vp-p) (PAL)
(ΔVR = 1.85 ± 0.07 (Vp-p)-For NTSC)

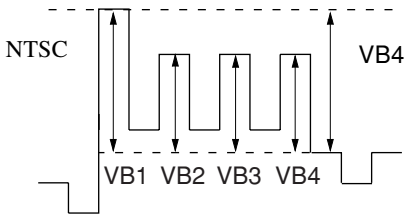
## 6-4. SUB HUE/COL ADJUSTMENT

### 6-4(1). SUB HUE/SUB COL (VIDEO MODE)

Input signal : NTSC Color bar (75%)
Picture : HI-FINE mode
Condition : SAJ 00 PIC 3F
SAJ 02 COL 1F
SAJ 10 HUO 05
SAJ 0E CLO 04
Adjusting parameter:
YCT 03 SCL
YCT 00 TNT

### 6-4(2). SUB HUE/SUB COL (NTSC RF MODE)

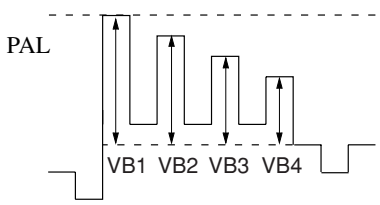
Input signal : NTSC Color bar (75%)
Condition : SAJ 00 PIC 3F
SAJ 02 COL 1F
SAJ 10 HUO 05
SAJ 0E CLO 04
Adjusting parameter:
YCT 03 SCL
YCT 00 TNT




VB1 = VB4 ± 70 mV
VB2 = VB3 ± 70 mV

### 6-4(3). SUB COLOR ADJUSTMENT (PAL RF MODE) (Except NTSC models)

Input signal : RF PAL Color bar (100%)
Picture : HI-FINE mode
Condition : SAJ 00 PIC 3F
SAJ 02 COL 1F
SAJ 0E CLO 04
SAJ 10 HUO 05
JGL 01 RGB 07
Adjusting parameter:
YCT 03 SCL




VB2 = VB3 = VB4

### 6-4(4). SUB COLOR ADJUSTMENT (PAL RF MODE)

Input signal : PAL Color bar (100%)
Picture : HI-FINE mode

| | | | | |
|---|---|---|---|---|
| Condition : | SAJ | 00 | PIC | 3F |
| | SAJ | 02 | COL | 1F |
| | SAJ | 0E | CLO | 04 |
| | SAJ | 10 | HUO | 05 |
| | JGL | 01 | RGB | 07 |

Adjusting parameter:

| | | | |
|---|---|---|---|
| | YCT | 03 | SCL |

## 6-5. DEFLECTION ADJUSTMENTS

**FOR DRC 1250 (50Hz) MODE**

1. Set to Service Mode.
2. Input a PAL cross hatch/dot signal.
3. Set the following condition.
   Picture Mode to [DYNAMIC], Picture Rotation to [+/−0] and Eco Mode to OFF.
4. Set to DRC-MF1250 mode.
5. Using the [1] and [4] button, select category GEO (Service Mode).
6. Select and adjust the following items to obtain optimum image. Raise/lower the data using the [3] and [6] buttons.

Service Item

| | | | |
|---|---|---|---|
| GEO : | 00 | VSZ | V SIZE |
| | 01 | VPS | V POSITION |
| | 02 | VLN | V LINEARITY |
| | 03 | SCO | S CORRECTION |
| | 04 | HSZ | H SIZE |
| | 06 | PAP | PIN AMP |
| | 07 | UPN | UPPER CORNER PIN |
| | 08 | LPN | LOWER CORNER PIN CORRECTION POSITION SETTING |
| | 09 | UCG | MOST UPPER CORNER PIN ADJUSTMENT |
| | 0E | PPH | V TRAPEZOID ADJUSTMENT |
| | 0F | AGL | AFC ANGLE |
| | 10 | BOW | AFC BOW |
| | 11 | HTR | V SAW0 WAVE SAW LEVEL GAIN CONTROL |
| | 12 | MPD | MP PARA WAVE DC BIAS CONTROL |
| | 14 | PBP | H CENT PARA WAVE SAW LEVEL GAIN CONTROL |
| | 15 | PBA | H CENT PARA WAVE GAIN CONTROL |
| DAC : | 00 | HCT | H CENTER |
| | 01 | HLN | H LINEARITY |

7. Write into the memory by pressing [MUTING] then [0] on the remote commander.

**FOR WIDE MODE, DRC1250 (50Hz)**

8. Adjust condition change to WIDE MODE : ON.
9. COPY (item FOR DRC 1250 (50Hz) MODE and adjust data for the following items.

Service Item

| | | | |
|---|---|---|---|
| GEO : | 00 | VSZ | V SIZE |
| | 01 | VPS | V POSITION |
| | 04 | HSZ | H SIZE |
| | 12 | MPD | MP PARA WAVE DC BIAS CONTROL |
| | 14 | PBP | H CENT PARA WAVE SAW LEVEL GAIN CONTROL |

10. Adjust V Blanking the following items.

Service Item

| | | | |
|---|---|---|---|
| GEO : | 1E | VAS | V ASPECT |
| | 1F | VSC | V SCROLL |

**FOR DRC 1250 (60Hz) MODE**

11. Input 525/60Hz signal.
12. Set to DRC-MF : 1250
13. COPY (item for DRC 1250 (50Hz) mode and adjust data for the following items.

Service Item

| | | | |
|---|---|---|---|
| GEO : | 12 | MDP | MP PARA WAVE DC BIAS CONTROL |
| | 14 | PBP | H CENT PARA WAVE SAW LEVEL GAIN CONTROL |

14. Adjust the following items.

Service Item

| | | | |
|---|---|---|---|
| GEO : | 00 | VSZ | V SIZE |
| | 01 | VPS | V POSITION |
| | 02 | VLN | V LINEARITY |
| | 03 | SCO | S CORRECTION |
| | 04 | HSZ | H SIZE |
| | 05 | HPS | H POSITION |
| | 06 | PAP | PIN AMP |
| | 07 | UPN | UPPER CORNER PIN |
| | 08 | LPN | LOWER CORNER PIN |
| | 09 | UCG | MOST UPPER CORNER PIN ADJUSTMENT |
| | 0E | PPH | V TRAPEZOID ADJUSTMENT |
| | 0F | AGL | AFC ANGLE |
| | 10 | BOW | AFC BOW |
| | 11 | HTR | V SAWO WAVE SAW LEVEL GAIN CONTROL |
| | 15 | PBA | H CENT PARA WAVE GAIN CONTROL |
| DAC | 01 | HLN | H LINEARITY |

**FOR WIDE MODE, DRC 1250 (60Hz)**

15. Set to WIDE MODE : ON
16. Copy the DRC 1250 (60Hz) MODE and adjust the following items to obtain optimum image.
    Raise/lower the data with the [3] and [6] buttons.

| | | | |
|---|---|---|---|
| GEO | 00 | VSZ | V SIZE |
| | 01 | VPS | V POSITION |
| | 04 | HSZ | H SIZE |
| | 12 | MPD | MP PARA WAVE DC BIAS CONTROL |
| | 14 | PBP | H CENT PARA WAVE SAW LEVEL GAIN CONTROL |

17. Adjust V Blanking for the following items.

| | | | |
|---|---|---|---|
| GEO | 1E | VAS | V ASPECT |
| | 1F | VSC | V SCROLL |

18. Adjust the following items.

    Service Item

| | | | |
|---|---|---|---|
| GEO : | 02 | VLN | V LINEARITY |
| | 03 | SCO | S CORRECTION |
| | 04 | HSZ | H SIZE |
| | 05 | HPS | H POSITION |
| | 06 | PAP | PIN AMP |
| | 07 | UPN | UPPER CORNER PIN |
| | 08 | LPN | LOWER CORNER PIN |
| | 09 | UCG | MOST UPPER CORNER PIN ADJUSTMENT |
| | 0E | PPH | V TRAPEZOID ADJUSTMENT |
| | 0F | AGL | AFC ANGLE |
| | 10 | BOW | AFC BOW |
| | 11 | HTR | V SAWO WAVE SAW LEVEL GAIN CONTROL |
| | 15 | PBA | H CENT PARA WAVE GAIN CONTROL |

19. Input a NTSC cross hatch/dot signal and repeat all above steps.

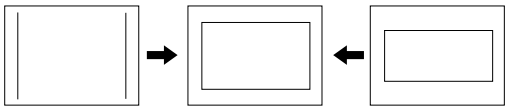
## 6-6. A BOARD ADJUSTMENT AFTER IC003 (MEMORY) REPLACEMENT

1. Enter to Service Mode.
2. Press commander buttons [5] and [0] (Data Initialize), and [2] and [0] (Data Copy) to initialize the data.
3. Call each item number and check if the respective screen shows the normal picture.
   In cases where items are not well adjusted, rectify the items with fine adjustment.
   Write the data per each item number ([MUTING] +[0]).
4. Select item numbers “OPB00” (OP1), “OPB01” (OP2) and respectively set the bit per model with command buttons [3] and [6].
5. Press commander buttons [8] and [0] (Test Normal) to return to the data that was set on the shipment from the factory. (This will also cancel Service Mode.)

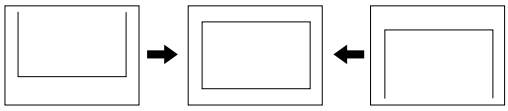
## 6-7. PICTURE DISTORTION ADJUSTMENT (1)

Item Number 00 – 0B

GEO 0 VSZ (V SIZE)

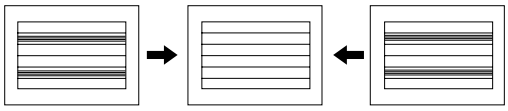


GEO 1 VPS (V POSITION)

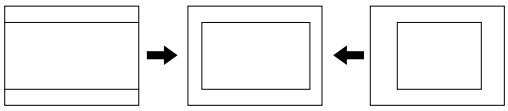


GEO 2 VLN (V LINEARITY)

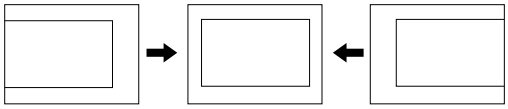
GEO 3 SCO (VERTICAL S-Correction)



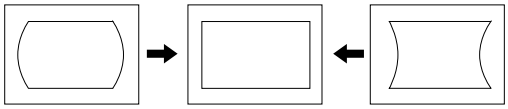
GEO 4 HSZ (H SIZE)



GEO 5 HPS (H POSITION)

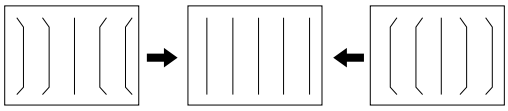


GEO 6 PAP (PIN AMP)

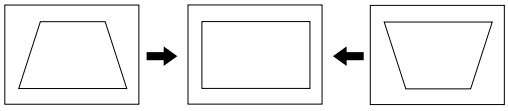


GEO 07 UPN (UPPER CORNER PIN)

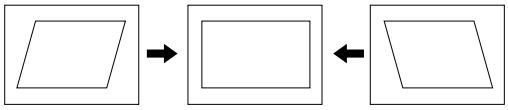
GEO 08 LPN (LOWER CORNER PIN)



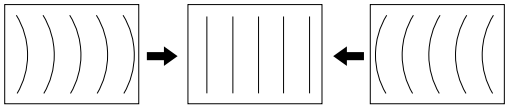
GEO 0E PPH (V TRAPEZOID ADJUSTMENT)



GEO 0F AGL (AFC.ANGLE)

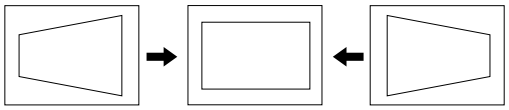


GEO 10 BOW (AFC.BOW)



## PICTURE DISTORTION ADJUSTMENT (2)

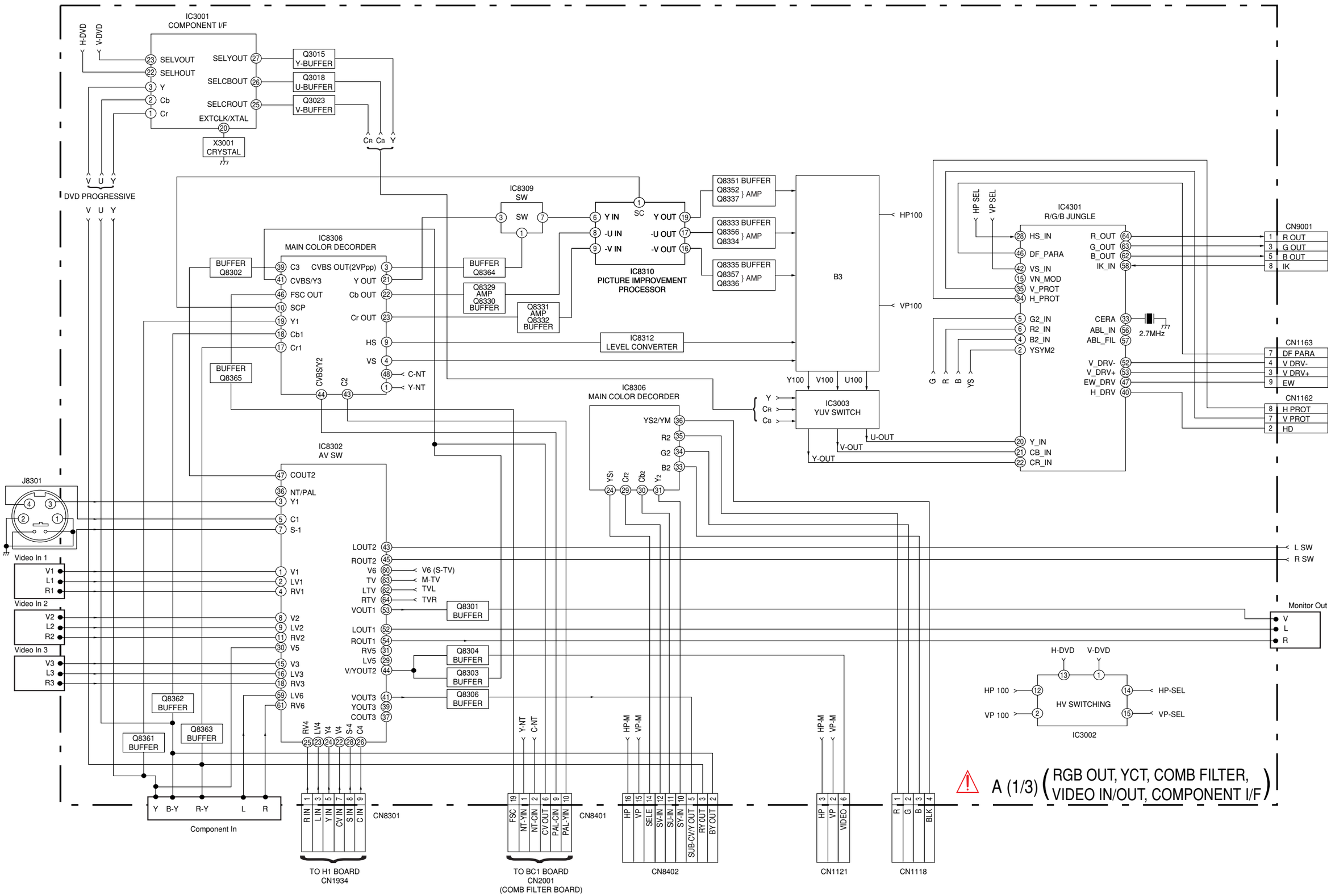
V SAWO WAVE LEVEL GAIN CONTROL (GEO 11 HTR)

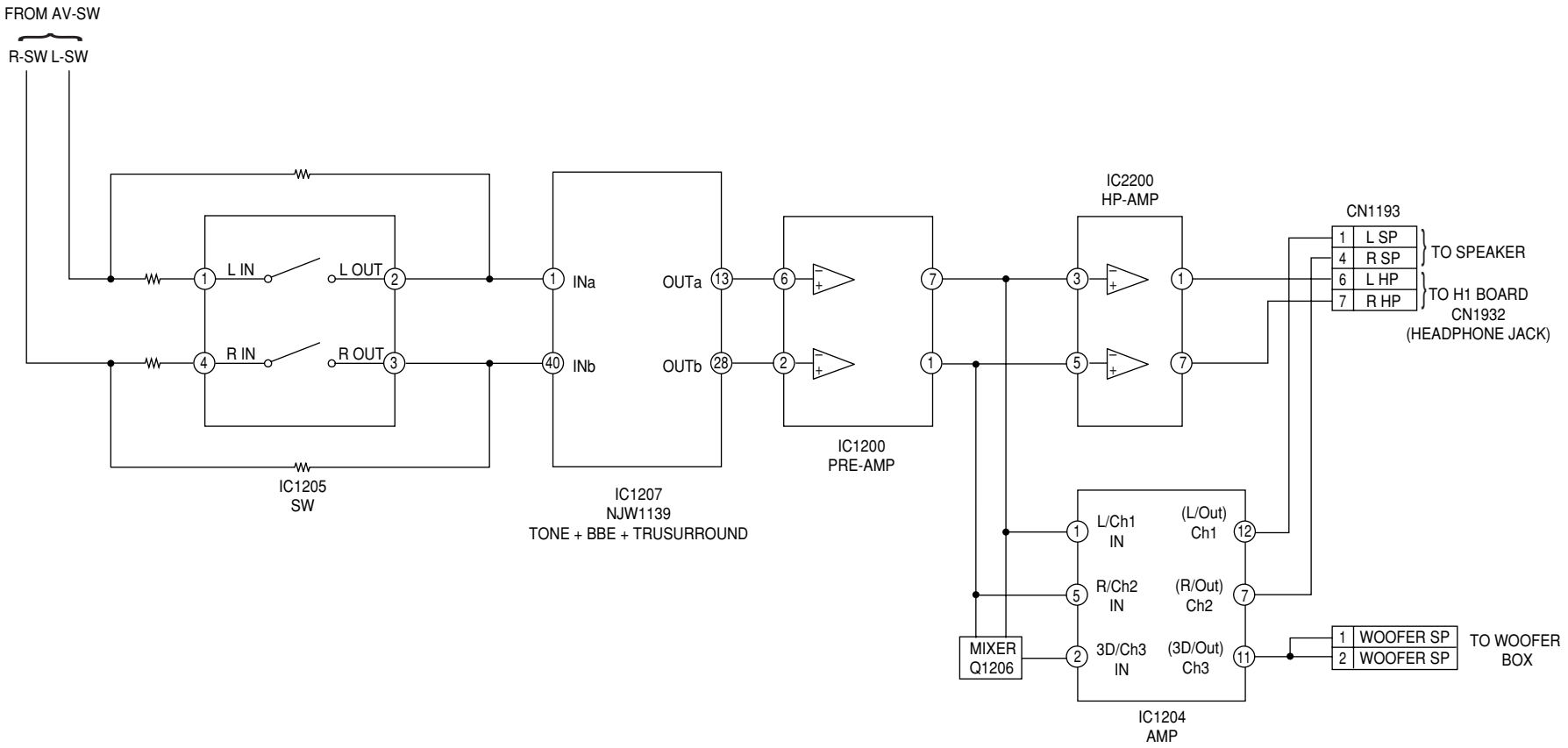


KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991

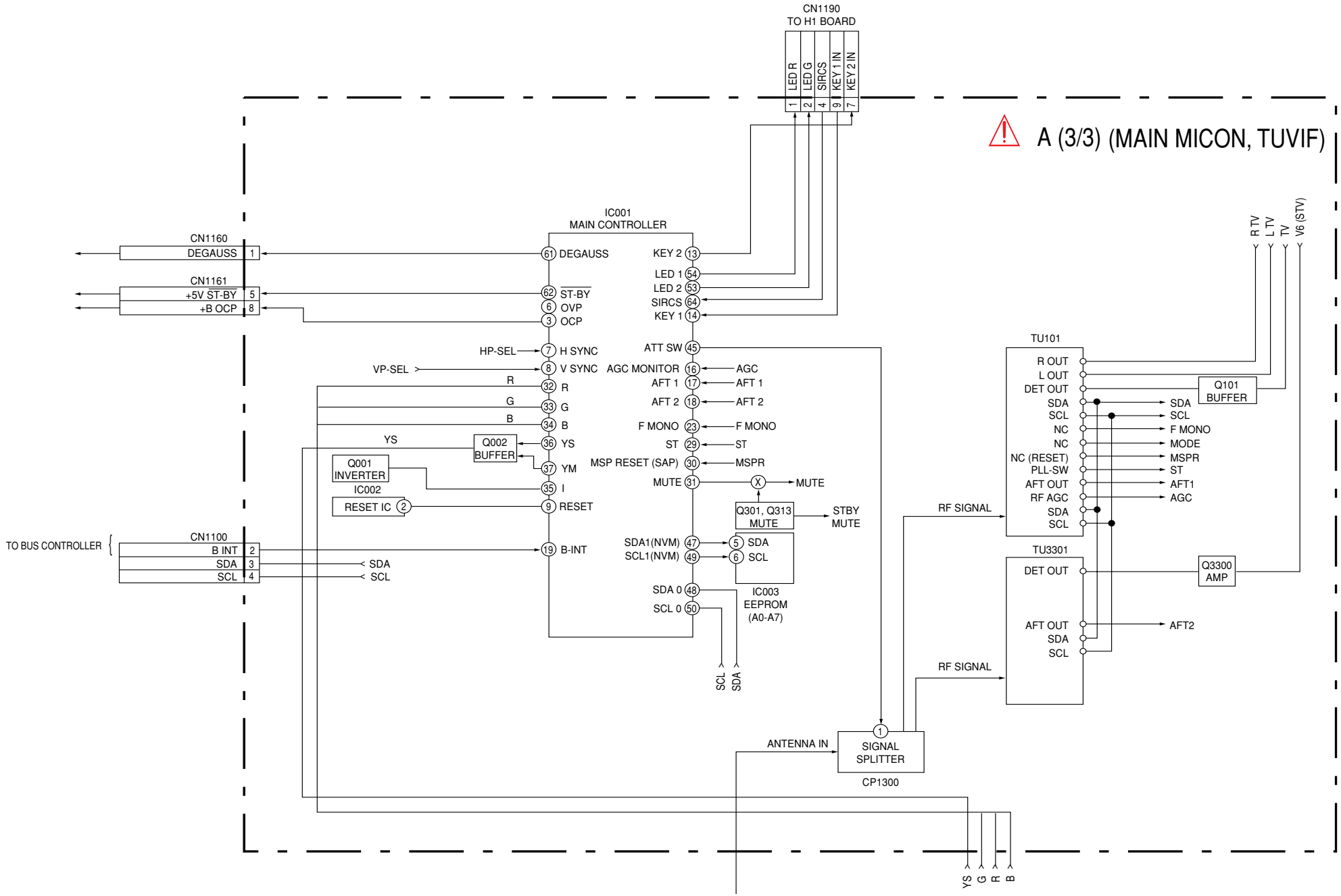
# SECTION 7
# DIAGRAMS

## 7-1. BLOCK DIAGRAM

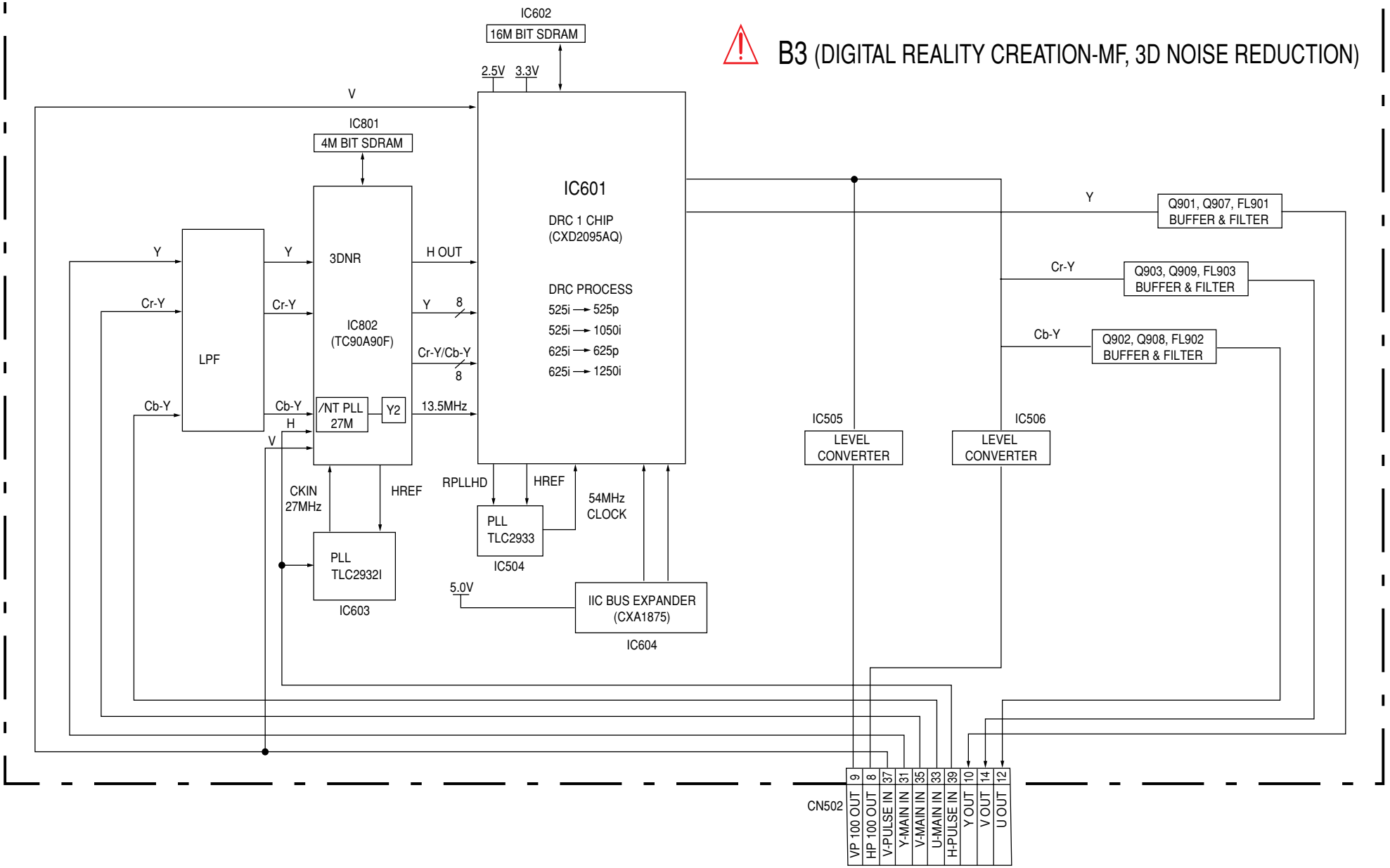




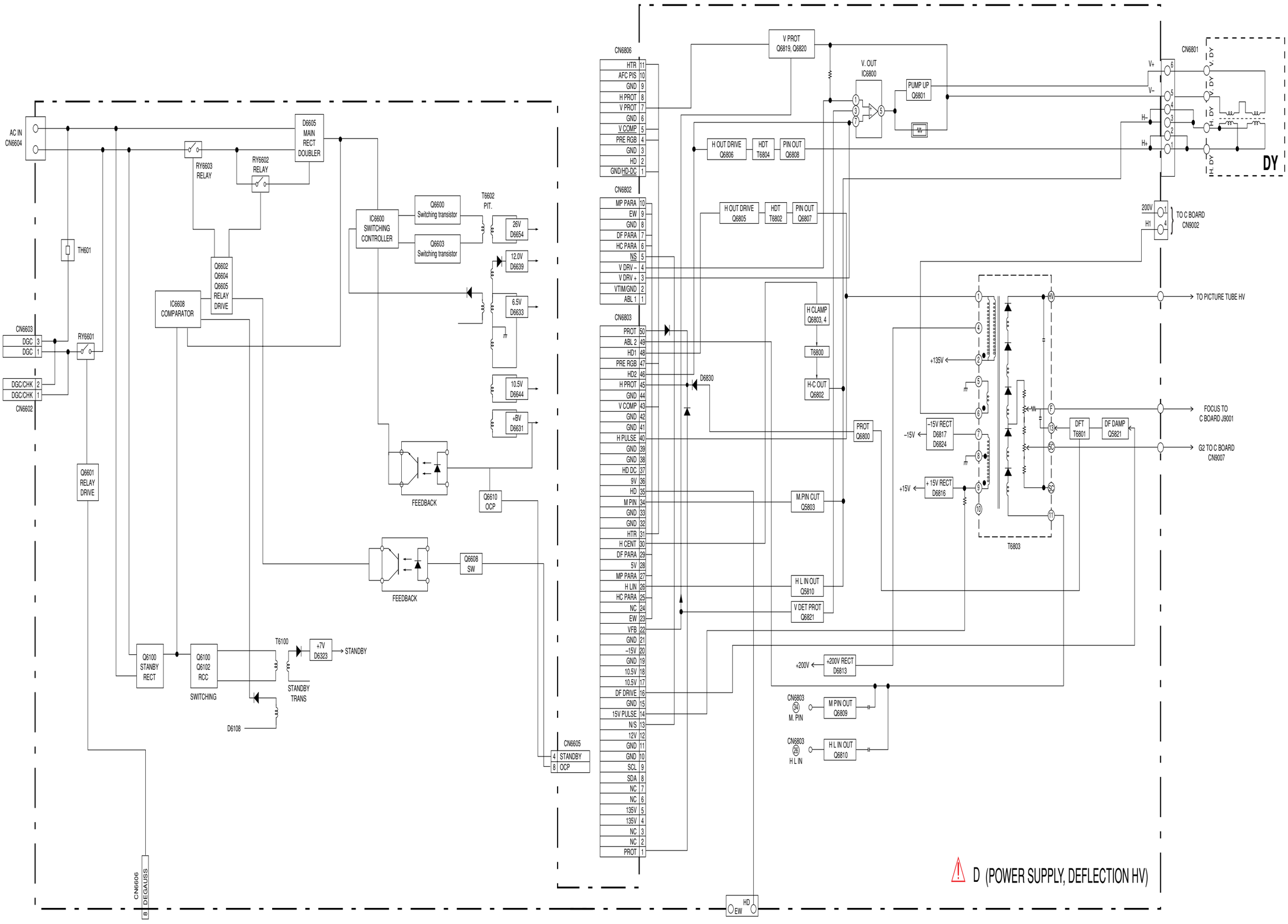

A (2/3) (AUDIO AMP, AUDIO IN/OUT)


A (3/3) (MAIN MICON, TUVIF)
CN1190
TO H1 BOARD
LED R
LED G
SIRCS
KEY 1 IN
KEY 2 IN
IC001
MAIN CONTROLLER
CN1160
DEGAUSS
CN1161
+5V ST-BY
+B OCP
HP-SEL
VP-SEL
YS
Q002
BUFFER
Q001
INVERTER
IC002
RESET IC
CN1100
TO BUS CONTROLLER
B INT
SDA
SCL
B-INT
ST-BY
OVP
OCP
H SYNC
V SYNC
R
G
B
YM
I
RESET
KEY 2
LED 1
LED 2
SIRCS
KEY 1
ATT SW
AGC MONITOR
AFT 1
AFT 2
F MONO
ST
MSP RESET (SAP)
MUTE
AGC
MSPR
Q301, Q313
MUTE
STBY
MUTE
SDA1(NVM)
SCL1(NVM)
SDA 0
SCL 0
IC003
EEPROM
(A0-A7)
TU101
R OUT
L OUT
DET OUT
NC
NC (RESET)
PLL-SW
AFT OUT
RF AGC
Q101
BUFFER
F MONO
MODE
MSPR
ST
AFT1
R TV
L TV
TV
V6 (STV)
RF SIGNAL
TU3301
Q3300
AMP
AFT2
ANTENNA IN
SIGNAL
SPLITTER
CP1300

# B3 (DIGITAL REALITY CREATION-MF, 3D NOISE REDUCTION)



KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991



KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991

# D5 (DEFLECTION CONTROL CIRCUIT)

CN6101
8P
WHT
: S-MICRO

| | |
|---|---|
| 8 | 9V |
| 7 | GND |
| 6 | N.C. |
| 5 | QP (–) |
| 4 | N.C. |
| 3 | QP (+) |
| 2 | N.C. |
| 1 | 135V |

CN6102
3P
BLK
: S-MICRO

| | |
|---|---|
| 3 | ROT COIL (+) |
| 2 | NC |
| 1 | NOT COIL (–) |

DQP DRIVE
Q6107
2SB1142-T

IC6501
LA6510 N/S-OUT

IC6205
CXA1875AM
DAC CONT

| | | | |
|---|---|---|---|
| 1 | QPDV | VCC | 16 |
| 2 | QPAV | SCL | 15 |
| 3 | HCENT | SDA | 14 |
| 4 | HLIN | SAD 2 | 13 |
| 5 | DFPH | SDA 1 | 12 |
| 6 | QPPH | SDA 0 | 11 |
| 7 | HTR | SW3 | 10 |
| 8 | GND | SW2 | 9 |

IC6100
UPC-5023
DF/DQP
CONTROL

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 |
| DFD | GND | HPIN | GND | OP6P | OP6M | OP6O | VCC1 | DQPPOA | DQPVMA | DQPVM |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| ISEL | HSAW IN | HSAW | GND | DQPD | 9VD | VCC2 | DQPPHA | DFPHA | DQPAA | NC |

Q6104
IRF1720-LF49
DQP (DC)
DRIVE

IC6401
LM393N
HD COMP

IC6201
LM393N
M. PIN CONP

H LIN, DRIVE
Q6213/Q6212
MSD601-RT1/
2PB709AR

H SIZE DETECT
Q6418/D6411
C6427

IC6402
UPC1898
HIP SYSTEM CONTROL

| | | | |
|---|---|---|---|
| 1 | HD IN | VCC | 30 |
| 2 | SAW 1 | HD1 OUT | 29 |
| 3 | SAW 2 | HD2 OUT | 28 |
| 4 | SAW 3 | SS | 27 |
| 5 | FH SELECT | HD1 DELAY SET | 26 |
| 6 | VRFF | DUTY | 25 |
| 7 | HST | PROT REF | 24 |
| 8 | EW | DY | 23 |
| 9 | HS AMP OUT | PIN OUT | 22 |
| 10 | HS CONT | LIMIT TIME | 21 |
| 11 | CENT | +B SENSE | 20 |
| 12 | L IN PARA | PWMSAW | 19 |
| 13 | CENT OUT | MP PARA | 18 |
| 14 | L IN OUT | H PULSE | 17 |
| 15 | GND | MP OUT | 16 |

PROT DETECT
Q6414/Q6415
2PB709AR/
MSD601-RT

HDI. DRIVE
Q6413/Q6412
MSD601-RT1/
2PB709AR

HDZ. DRIVE
Q6410/Q6409
MSD601-RT1/
2PB709AR

HZ00MING /PIN. CONTROL
Q6422/Q6423/Q6424
Q6425
Q6417/Q6419/Q6420
Q6421/others

H PIN DRIVE
Q6215/Q6216
MSD601-RT1/
2PB709AR

CN6100
50P

| | |
|---|---|
| 1 | PROT |
| 2 | NC |
| 3 | NC |
| 4 | 135V |
| 5 | 135V |
| 6 | NC |
| 7 | NC |
| 8 | SDA |
| 9 | SCL |
| 10 | GND |
| 11 | GND |
| 12 | 12V |
| 13 | N/S |
| 14 | 15V PULSE |
| 15 | GND |
| 16 | DF DRIVE |
| 17 | 10.5V |
| 18 | 10.5V |
| 19 | GND |
| 20 | –15V |
| 21 | GND |
| 22 | VFB |
| 23 | EW |
| 24 | NC |
| 25 | HC PARA |
| 26 | HL IN |
| 27 | MP PARA |
| 28 | 5V |
| 29 | DF PARA |
| 30 | H CENT |
| 31 | HTR |
| 32 | GND |
| 33 | GND |
| 34 | M PIN |
| 35 | HD |
| 36 | 9V |
| 37 | HD DC |
| 38 | GND |
| 39 | GND |
| 40 | H PULSE |
| 41 | GND |
| 42 | GND |
| 43 | V COMP |
| 44 | GND |
| 45 | H PROT |
| 46 | HD2 |
| 47 | PRE RGB |
| 48 | HD 1 |
| 49 | ABL (LARGE) |
| 50 | PROT |

## 7-2. SCHEMATIC DIAGRAMS

**Note:**

- All capacitors are in µF unless otherwise noted.
- All electrolytic capacitors are rated at 50V unless otherwise noted.
- All resistors are in ohms.
  kΩ = 1000Ω, MΩ = 1000kΩ
- Indication of resistance which does not have rating electrical power is as follows.

  Pitch: 5 mm
  Rating electrical power 1/4W (CHIP: 1/10W)

- : nonflammable resistor.
- △ : internal component.
- : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B unless otherwise noted.
- **Readings are taken with a color-bar signal input.**
  **no mark : Common**
  **( ) : PAL**
  **[ ] : NTSC 3.58**
- **Readings are taken with a 10Ω digital multimeter.**
- **Voltage are dc with respect to ground unless otherwise noted.**
- **Voltage variations may be noted due to normal production tolerances.**
- **All voltages are in V.**
- * **: Cannot be measured.**
- **Circled numbers are waveform references.**
- **: B + bus.**
- **: B – bus.**
- ⇨ **: signal path.**

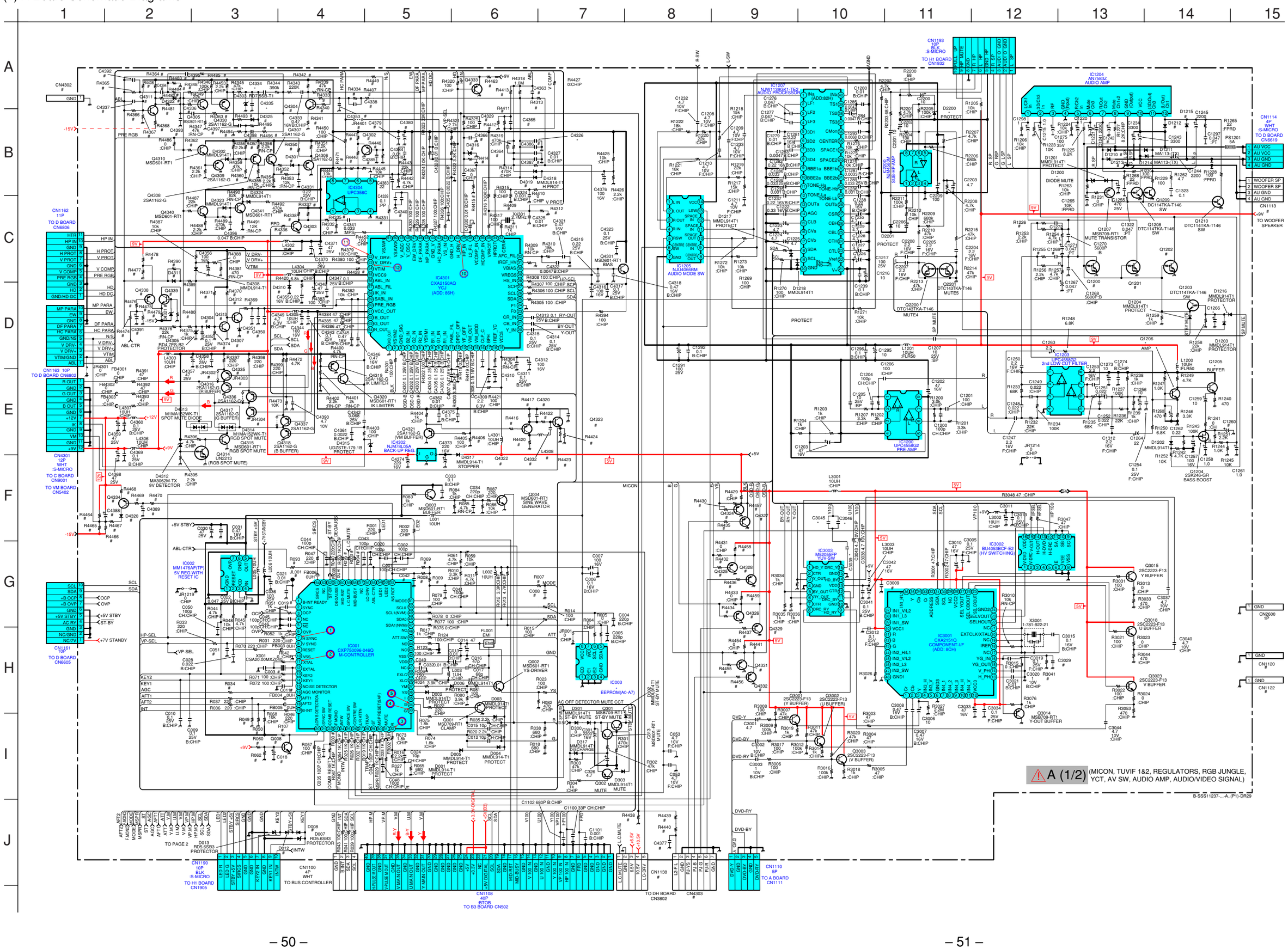
**Reference information**

| | | |
|---|---|---|
| RESISTOR | : RN | METAL FILM |
| | : RC | SOLID |
| | : FPRD | NONFLAMMABLE CARBON |
| | : FUSE | NONFLAMMABLE FUSIBLE |
| | : RS | NONFLAMMABLE METAL OXIDE |
| | : RB | NONFLAMMABLE CEMENT |
| | : RW | NONFLAMMABLE WIREWOUND |
| | : ✻ | ADJUSTMENT RESISTOR |
| COIL | : LF-8L | MICRO INDUCTOR |
| CAPACITOR | : TA | TANTALUM |
| | : PS | STYROL |
| | : PP | POLYPROPYLENE |
| | : PT | MYLAR |
| | : MPS | METALIZED POLYESTER |
| | : MPP | METALIZED POLYPROPYLENE |
| | : ALB | BIPOLAR |
| | : ALT | HIGH TEMPERATURE |
| | : ALR | HIGH RIPPLE |

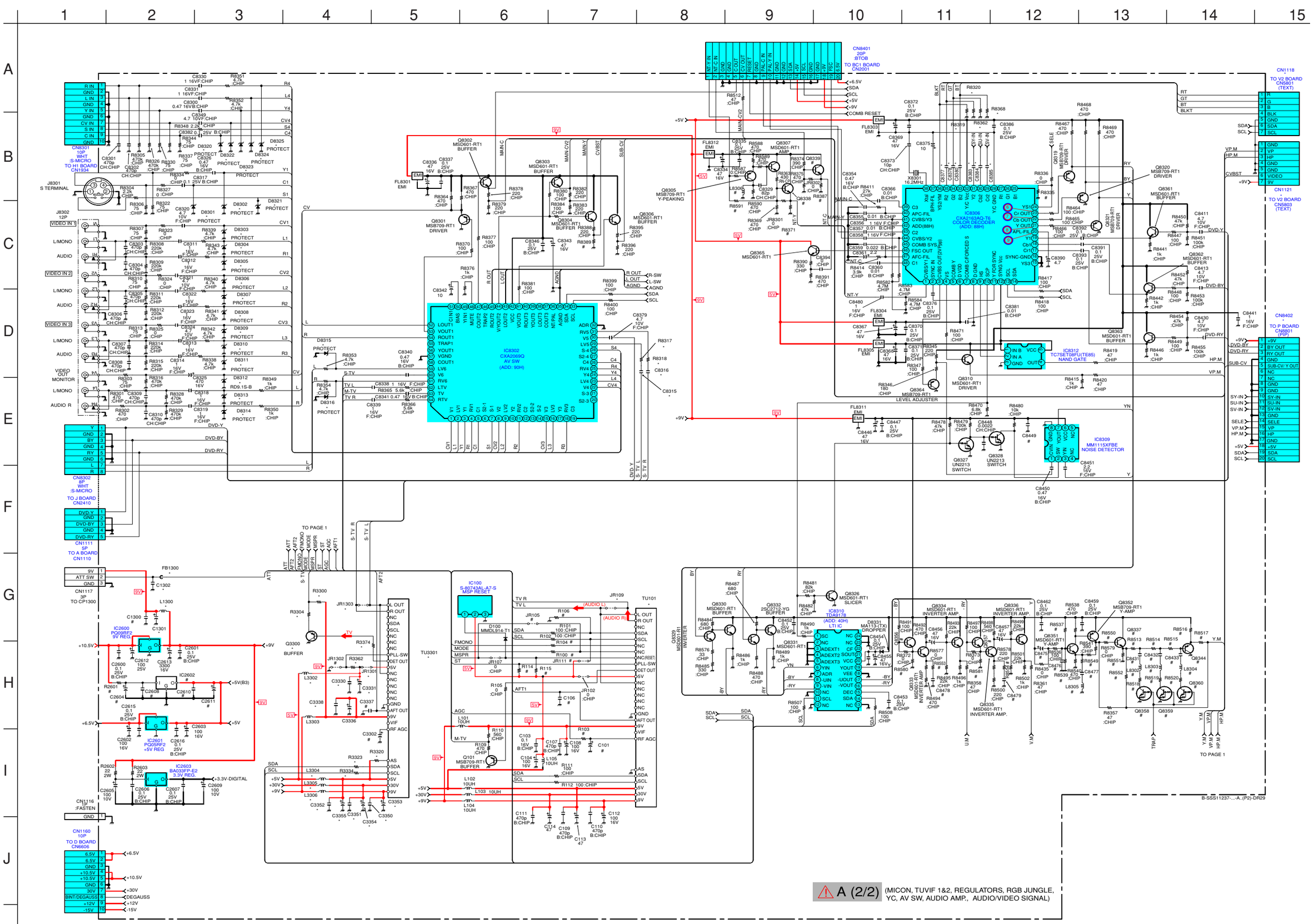
**Note: The component identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.**

KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991

(1) A Board Schematic Diagrams

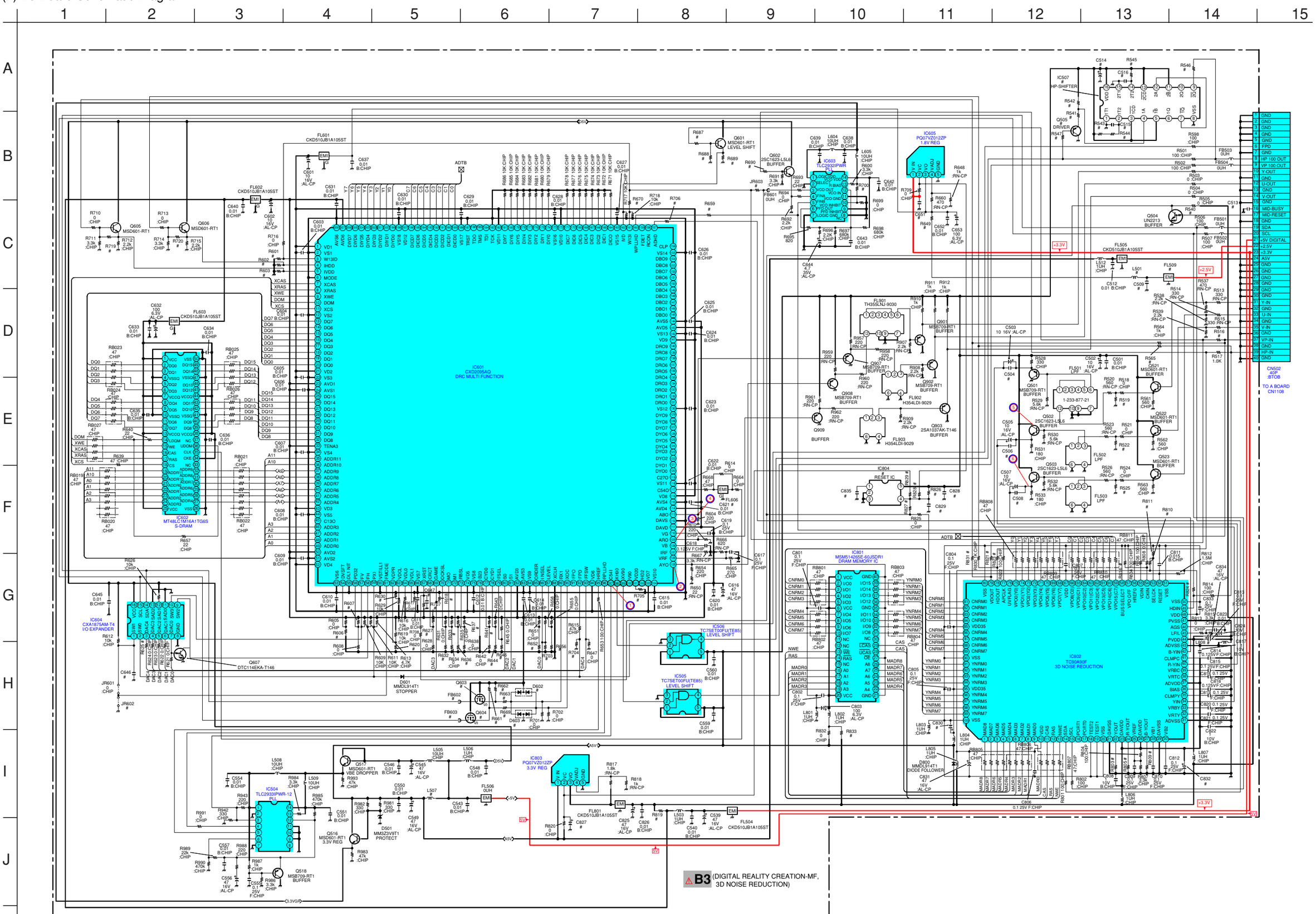

IC4304 UPC1656C
IC4301 CXA2150AQ YCJ (ADD: 86H)
IC1207 NJW1139GKJ-TE1 AUDIO PROCESSOR
IC1204 AN7563Z AUDIO AMP
IC1205 NJU4066BM AUDIO MODE SW
IC1202 NJM2904M S-IN HP AMP
IC1203 UPC4558C2 2nd LOW CUT FILTER
IC1200 UPC4558C2 PRE-AMP
IC1201 NJM4558M MUTE
IC002 MM1476AR(TP) 5V REG WITH RESET IC
IC001 CXP75066-046Q M-CONTROLLER
IC003 EEPROM(A0-A7)
IC3003 M62055FP YUV-SW
IC3002 BU4053BCF-E2 (HV SWITCHING)
IC3001 CXA2151Q COMPONENT-I/F (ADD: 8CH)
CN1193 10P BLK :S-MICRO TO H1 BOARD CN1932
CN1114 4P WHT :S-MICRO TO D BOARD CN6619
CN1113 TO WOOFER SPEAKER
CN1162 11P TO D BOARD CN6806
CN1163 10P TO D BOARD CN6802
CN4301 12P WHT :S-MICRO TO C BOARD CN9001
TO VM BOARD CN5402
CN1161 10P TO D BOARD CN6605
CN1190 10P BLK :S-MICRO TO H1 BOARD CN1905
CN1100 4P WHT TO BUS CONTROLLER
CN1108 40P BTOB TO B3 BOARD CN502
CN1138
CN4303
CN1110 5P TO A BOARD CN1111
CN2600 1P
CN1120
CN1122
TO DH BOARD CN3802
TO PAGE 2
MICON
PROTECT
AMP
BUFFER
SP MUTE
A (1/2) (MICON, TUVIF 1&2, REGULATORS, RGB JUNGLE, YCT, AV SW, AUDIO AMP, AUDIO/VIDEO SIGNAL)
B-SSS11237-...-A..(P1)-DR29

KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991


CN8401
20P
:BTOB
TO BC1 BOARD
CN2001
CN1118
TO V2 BOARD
CN5801
(TEXT)
CN1121
TO V2 BOARD
CN5803
(TEXT)
CN8402
CN8801
(PIP)
TO P BOARD
CN8801
(PIP)
CN8301
10P
WHT
:S-MICRO
TO H1 BOARD
CN1934
CN8302
8P
WHT
:S-MICRO
TO J BOARD
CN2410
CN1111
5P
TO A BOARD
CN1110
CN1117
3P
TO CP1300
CN1116
1P
:FASTEN
CN1160
10P
TO D BOARD
CN6606
IC8302
CXA2069Q
AV SW
(ADD: 90H)
IC8306
CXA2163AQ-TE
COLOR DECODER
(ADD: 88H)
IC8309
MM1115XFBE
NOISE DETECTOR
IC8310
TDA9178
(ADD: 40H)
LTI IC
IC8312
TC7SET08FU(TE85)
NAND GATE
IC2600
PQ09RF2
9V REG.
IC2601
PQ05RF2
+5V REG
IC2602
IC2603
BA033FP-E2
3.3V REG.
IC100
S-80743AL-A7-S
MSP RESET
TU101
TU3301
Q8302
MSD601-RT1
BUFFER
Q8303
MSD601-RT1
BUFFER
Q8304
MSD601-RT1
BUFFER
Q8305
MSB709-RT1
Y-PEAKING
Q8306
MSD601-RT1
BUFFER
Q8307
MSD601-RT1
AMP
Q8301
MSB709-RT1
DRIVER
Q8320
MSB709-RT1
DRIVER
Q8361
MSD601-RT1
BUFFER
Q8362
MSD601-RT1
BUFFER
Q8363
MSD601-RT1
BUFFER
Q8365
MSD601-RT1
Q8310
MSD601-RT1
DRIVER
Q8364
MSB709-RT1
LEVEL ADJUSTER
Q8327
UN2213
SWITCH
Q8328
UN2213
SWITCH
Q8330
MSD601-RT1
BUFFER
Q8332
2SC2712-YG
BUFFER
Q8331
MSD601-RT1
INVERTER
Q8333
MSD601-RT1
INVERTER AMP.
Q8334
MSD601-RT1
INVERTER AMP.
Q8335
MSD601-RT1
INVERTER AMP.
Q8336
MSD601-RT1
INVERTER AMP.
Q8337
MSD709-RT1
Y-AMP
Q8351
MSD601-RT1
Y-AMP
Q8352
MSD709-RT1
Y-AMP
Q8326
MSD601-RT1
SLICER
Q8339
Q8340
Q8341
Q8342
Q8343
Q8344
Q8345
Q8346
Q8347
Q8348
Q8349
Q8350
Q8358
Q8359
Q8360
Q8366
Q8367
Q8368
Q8369
Q8371
Q8372
Q8373
Q8375
Q8376
Q8377
Q8378
Q8379
Q8380
Q8381
Q8382
Q8383
Q8384
Q8385
Q8386
Q8387
Q8388
Q8389
Q8390
Q8391
Q8392
Q8393
Q8394
Q8395
Q8396
Q8399
Q8400
Q8401
Q8402
Q8403
Q8404
Q8405
Q8406
Q8407
Q8408
Q8409
Q8410
Q8411
Q8412
Q8413
Q8414
Q8415
Q8416

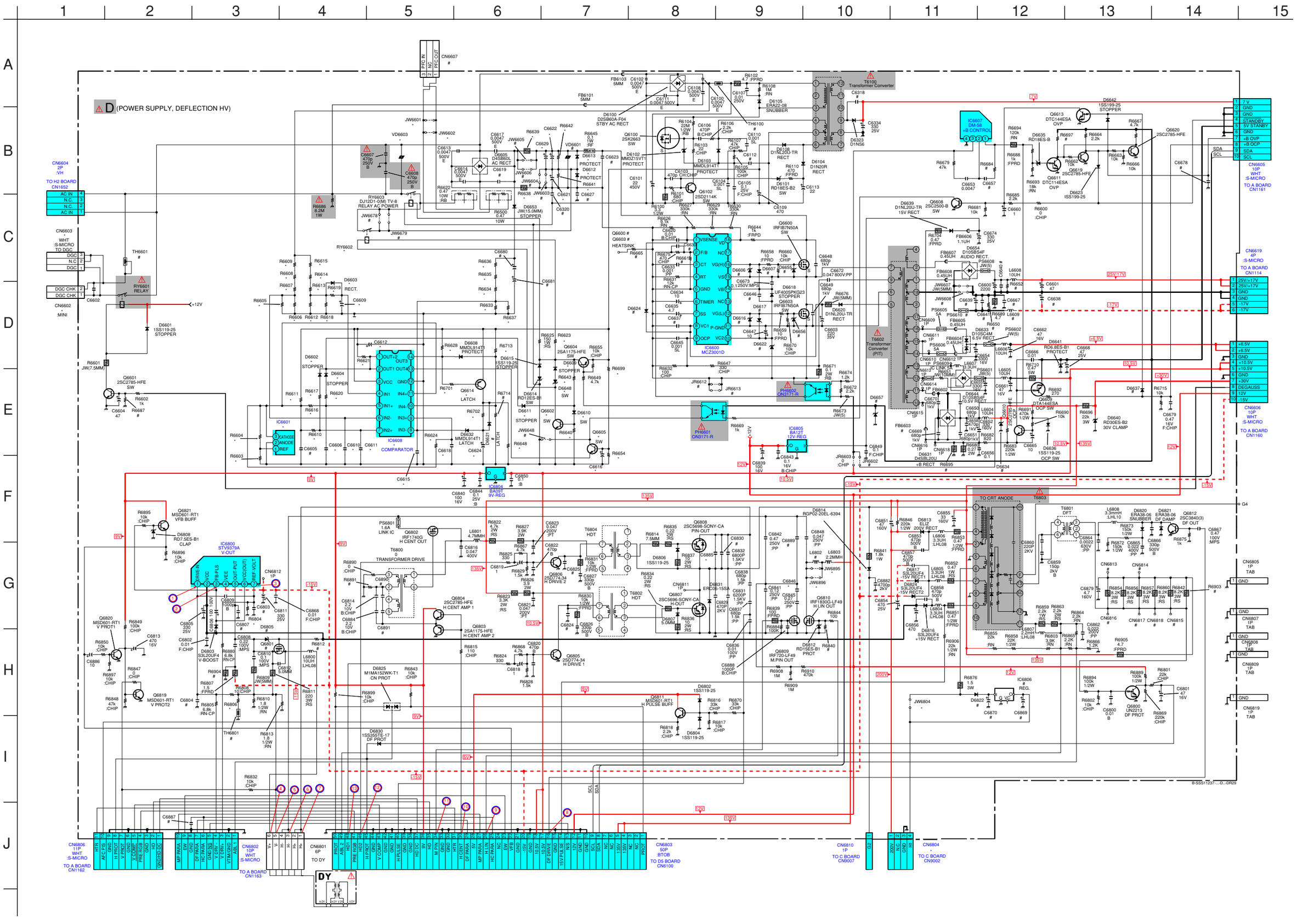
KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991

(2) B3 Board Schematic Diagram



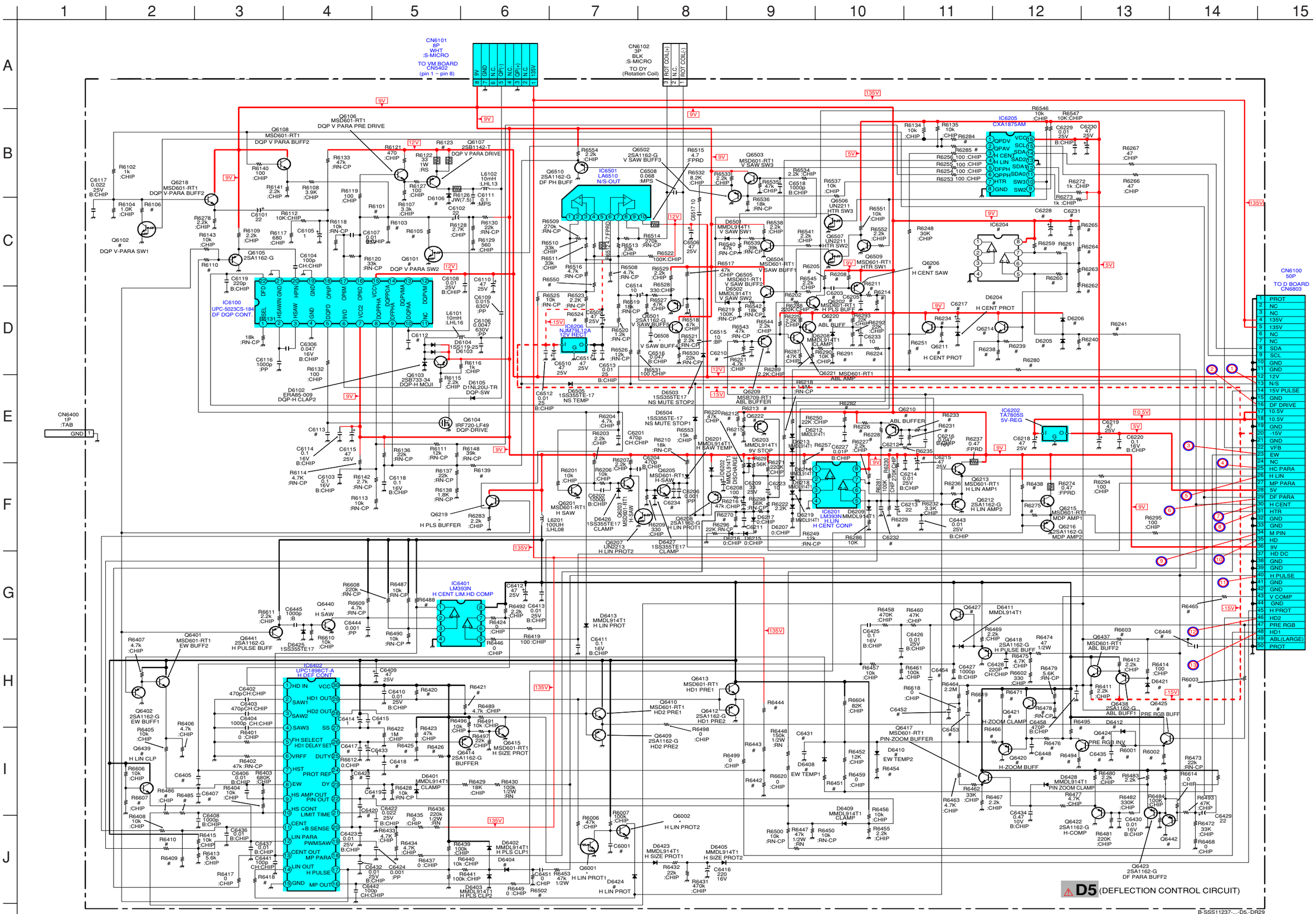
KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991

(3) D Board Schematic Diagram


D (POWER SUPPLY, DEFLECTION HV)
CN6607
PFC IN
NC
PFC OUT
CN6604
2P
:VH
TO H2 BOARD
CN1652
AC IN
N.C.
N.C.
AC IN
CN6603
WHT
:S-MICRO
TO DGC
DGC
N.C
DGC
DGC CHK
DGC CHK
CN6602
:MINI
TH6601
RY6601
RELAY
RECT.
D6601
1SS119-25
STOPPER
+12V
R6601
JW(7.5MM)
Q6601
2SC2785-HFE
SW
C6604
47
R6602
1k
C6602
IC6601
CATHODE
ANODE
REF
IC6608
COMPARATOR
IC6800
STV9379A
V-OUT
DRIVE-A
VCC
FB-P-I-S
VEE
OUT-PUT
VCC(OUT)
REF-VOLT
CN6812
1P
RY6603
DJ12D1-0(M) TV-8
RELAY AC POWER
JW6601
JW6602
JW6605
JW6606
JW6604
JW6603
JW6678
JW6679
VD6603
C6607
470p
250V
B
C6608
470p
250V
B
R6686
8.2M
1W
R6500
0.47
10W
D6653
JW(15.0MM)
STOPPER
RY6602
D6100
D2SB60A-F04
STBY AC RECT
FB6103
5MM
FB6101
5MM
C6102
0.0047
500V
E
C6108
0.0047
500V
E
C6111
0.0047 500V
E
C6100
0.0047
500V
E
C6107
0.01
250V
R6102
4.7 :FPRD
R6108
1M
:RN
R6105
ERA22-08
SNUBBER
T6100
Transformer Converter
C6318
#
C6334
330
25V
D6323
D1NS6
Q6100
2SK2663
SW
R6104
22M
1/2W
:RB
R6106
2.2k
:CHIP
TH6100
#
R6103
22
:CHIP
R6107
47k
:CHIP
C6110
0.001
SL
C6112
#
D6102
MM3Z15VT1
PROTECT
D6103
MMDL914T1
PROTECT
D6108
D1NL20U-TR
RECT
D6104
D1N20R
RECT
C6103
470p CH:CHIP
C6104
0.001
SL
C6105
0.1
25V
F:CHIP
C6101
22
450V
R6101
560
:CHIP
C6102
2SD2114K
SW
R6627
330k
:RN
R6629
330k
:RN
R6630
330k
:RN
C6109
470
R6110
470
:FPRD
C6113
22
D6101
RD18ES-B2
SW
R6100
10
1/2W
R6626
9.1k
:RN
C6620
0.01
B:CHIP
R6644
1k
:FPRD
Q6600 #
Q6603 #
HEATSINK
R6665
#
Q6600
IRFIB7N50A
SW
R6658
10
:FPRD
R6660
10k
:CHIP
C6607
C6655
R6676
JW(5MM)
C6672
0.047 800V:PP
C6648
680p
1kV
C6649
680p
1kV
D6620
D1NL20U-TR
RECT
C6603
220
35V
D6618
UF4005PK923
STOPPER
Q6603
IRFIB7N50A
SW
D6617
D6616
C6647
10
R6659
10
:FPRD
R6656
R6670
10k
:CHIP
D6622
C6645
0.001
SL
C6646
#
C6673
0.1250V:MPS
C6634
10
C6635
4.7
C6637
10
R6631
12k
:RN:CP
R6632
100
:CHIP
R6671
0.1
2W
:RB
R6674
1.2k
:RB
R6672
2.2k
R6673
JW(5)
JR6612
#
JR6613
#
PH6602
ON3171-R
PH6601
ON3171-R
R6669
1k
D6657
C6849
0.1
F:CHIP
JR6603
0
:CHIP
JR6602
#
IC6805
BA12T
12V-REG
C6839
100
16V
C6843
0.1
16V
B:CHIP
C6840
100
16V
C6844
0.1
25V
:B
C6850
0.1
:B
IC6804
BA09T
9V-REG
C6615
#
R6604
R6603
C6605
#
C6606
C6610
C6611
R6610
R6616
R6617
R6620
R6611
C6612
R6623
R6621
R6628
D6608
MMDL914T1
PROTECT
R6713
D6615
1SS119-25
STOPPER
R6625
1W
:RS
C6604
2SA1175-HFE
SW
R6655
10k
:CHIP
R6699
R6647
330
:CHIP
R6649
4.7k
D6609
STOPPER
D6648
SW
R6643
D6610
SW
R6640
C6605
SW
R6654
C6616
R6624
D6632
MMDL914T1
LATCH
C6618
C6624
LATCH
R6701
C6614
LATCH
R6702
R6714
D6611
STOPPER
Q6602
SW
JW6648
#
R6648
D6602
STOPPER
D6604
STOPPER
D6612
RD12ES-B1
SW
C6614
R6622
0.47
10W
:RB
R6638
JW6603
C6621
#
C6320
#
C6627
#
D6613
PROTECT
D6612
PROTECT
D6641
C6623
#
C6622
R6642
R6639
R6645
0.1
1W
:RF
VD6601
#
C6629
C6617
0.0047
500V
E
C6619
#
C6613
0.0047
500V
E
C6614
0.0047
500V
E
D6605
D43B60L
AC RECT
C6680
#
C6636
C6635
C6634
C6633
R6633
C6681
#
R6637
R6609
R6615
R6608
R6614
R6607
R6619
D6603
R6605
R6606
R6612
R6618
C6609
+12V
D6601
1SS119-25
STOPPER
R6601
JW(7.5MM)
Q6601
2SC2785-HFE
SW
C6604
47
R6602
1k
C6602
IC6601
CATHODE
ANODE
REF
IC6608
COMPARATOR

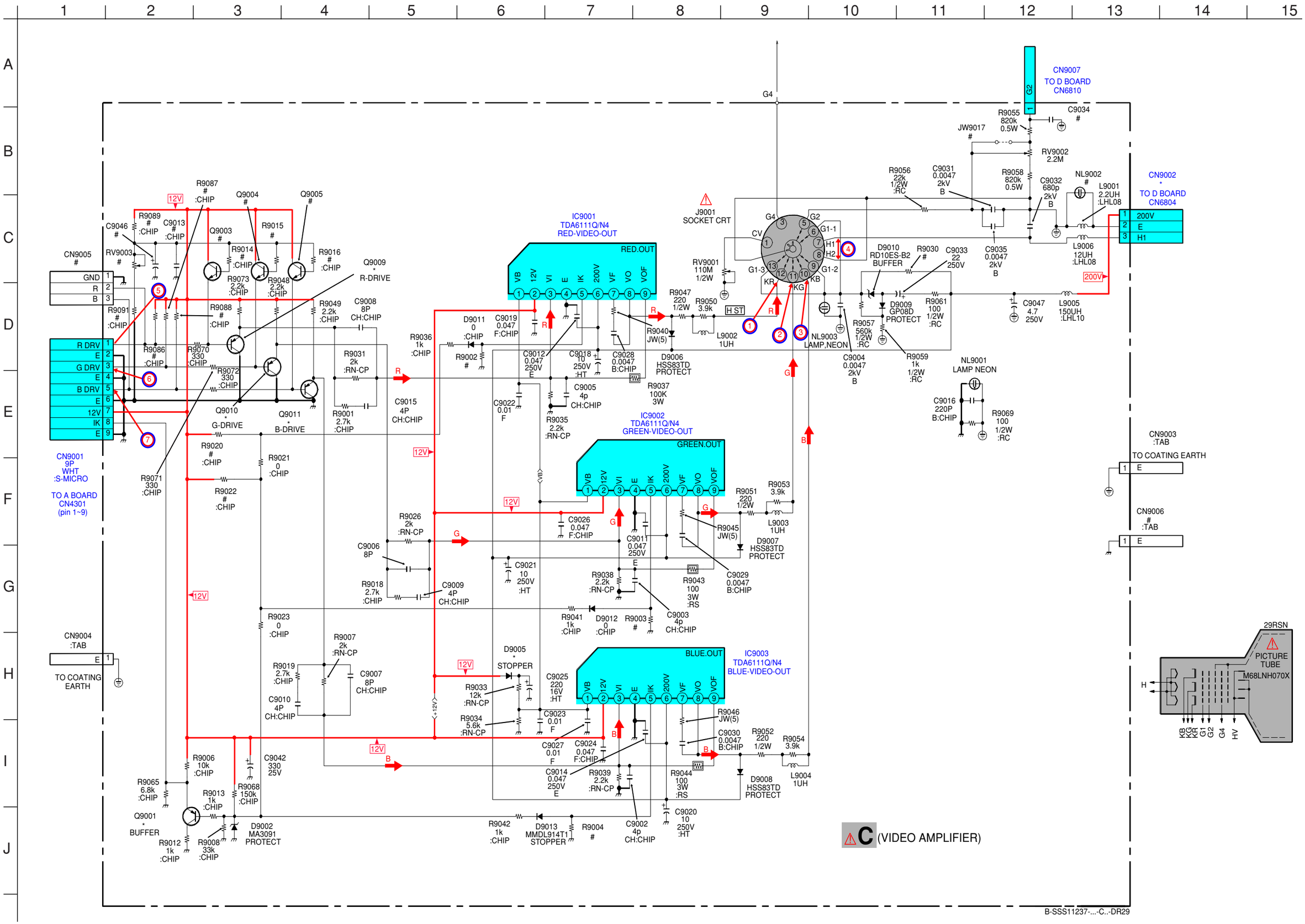
KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991

(4) D5 Board Schematic Diagram


CN6101 8P WHT :S-MICRO TO VM BOARD CN5402 (pin 1 ~ pin 8)
9V GND N.C. OP(-) N.C. OP(+) N.C. 135V
CN6102 3P BLK :S-MICRO TO DY (Rotation Coil)
ROT COIL(+) N.C. ROT COIL(-)
CN6100 50P TO D BOARD CN6803
PROT NC NC 135V NC NC SDA SCL GND GND 12V NJS 15V PULSE GND DF DRIVE 10.5V 10.5V GND -15V GND VFB EW NC HC PARA H LIN MP PARA 5V DF PARA H CENT HTR GND GND M PIN HD 9V HD DC GND GND H PULSE GND GND V COMP GND H PROT HD2 PRE RGB HD1 ABL(LARGE) PROT
CN6400 1P :TAB GND
IC6100 UPC-5023CS-184 DF DQP CONT.
IC6205 CXA1875AM
IC6204 H CENT SAW
IC6206 NJM79L12A 12V REG
IC6202 TA7805S 5V-REG
IC6501 LA6510 N/S-OUT
IC6201 LM393N H LIN H CENT CONP
IC6401 LM393N H CENT LIM.HD COMP
IC6402 UPC1898CT-A H DEF CONT
D5 (DEFLECTION CONTROL CIRCUIT)
B-SSS11237-...-D5.-DR29

KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991

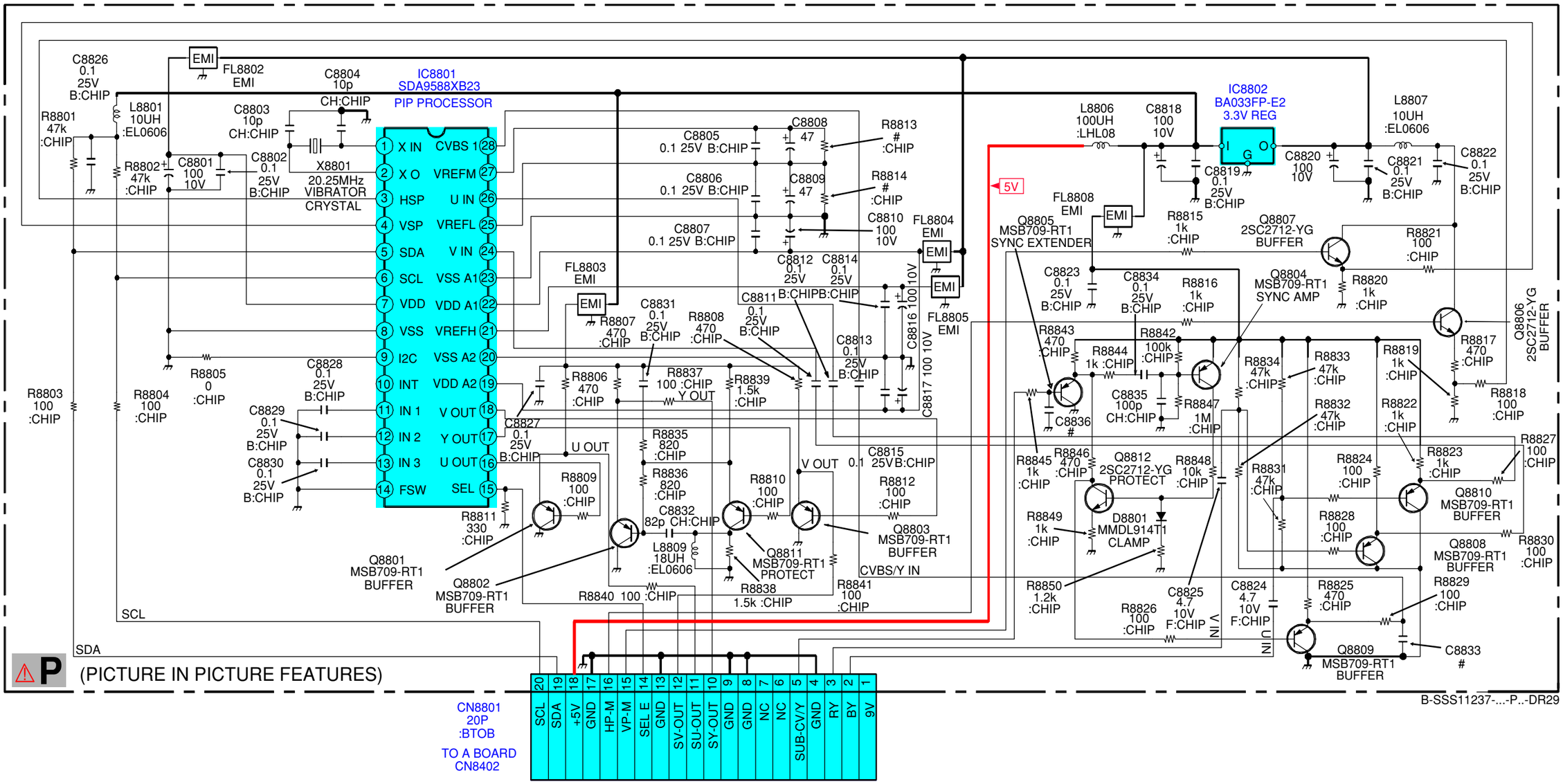
(5) C Board Schematic Diagram



KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991

(6) P Board Schematic Diagram

**(FOR KV-DR29M39/DR29M69/DR29M89)**



KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991

(7) BC1 Board Schematic Diagram

# ⚠BC1

( 2D & 3D DIGITAL COMB)

(Y/C SEP)

| | |
|---|---|
| 2.5V | A2.5V |
| 2.5V-2 | D2.5V |
| 5V | A5V |
| 5V-2 | D5V |
| 3.3V-2 | D3.3V |
| 9V | 9V |

IC2300 TC90A69F :B2H 2D COMB

IC2004 UPD64083GF-3BA 3D COMB:B8H

IC2001 BA25BC0FP-E2 2.5V REGULATOR

IC2005 BA033FP-E2 3.3V REGULATOR

CN2001 20P :BTOB TO A BOARD CN8401

| | |
|---|---|
| 1 | NT-Y OUT |
| 2 | NT-C OUT |
| 3 | E |
| 4 | E |
| 5 | C IN |
| 6 | COMP V IN |
| 7 | RESET |
| 8 | GND |
| 9 | PAL-C |
| 10 | PAL-Y |
| 11 | GND |
| 12 | E |
| 13 | SDA |
| 14 | 5V |
| 15 | SCL |
| 16 | GND |
| 17 | E |
| 18 | 9V |
| 19 | FSC |
| 20 | +6.5V |

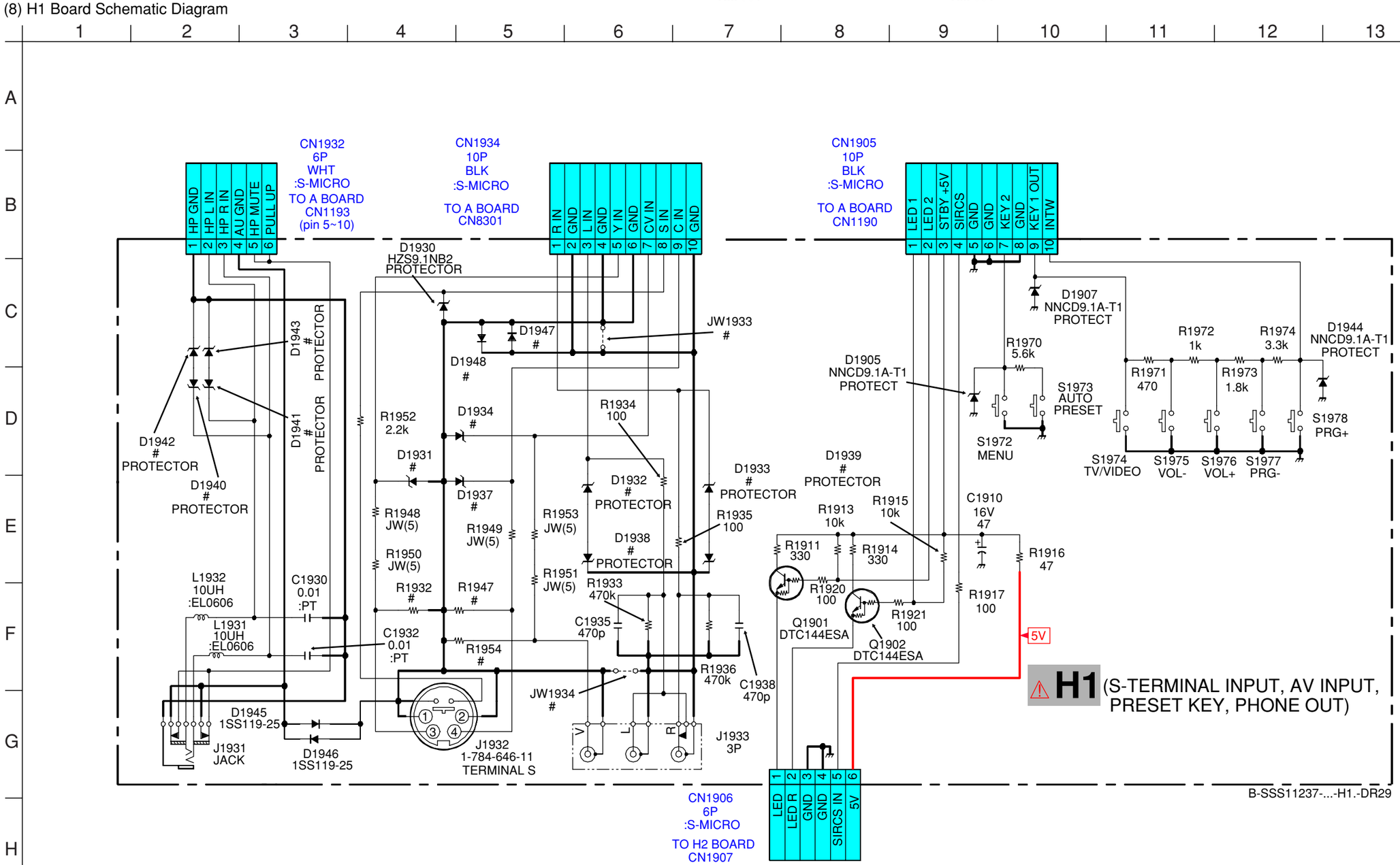
CN2002 #

| | |
|---|---|
| 1 | GND |

B-SSS11237-...-BC1-DR29

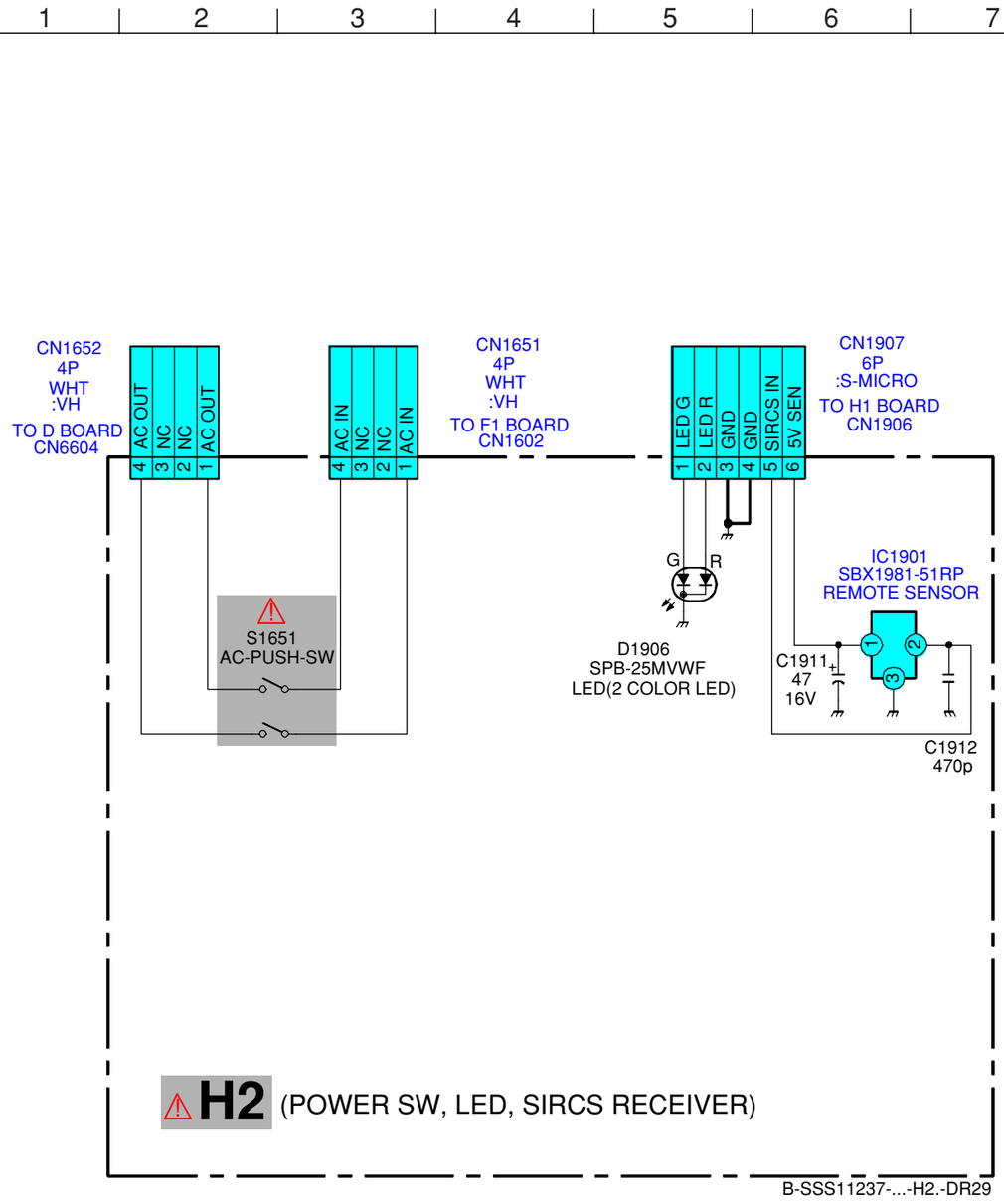
KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991

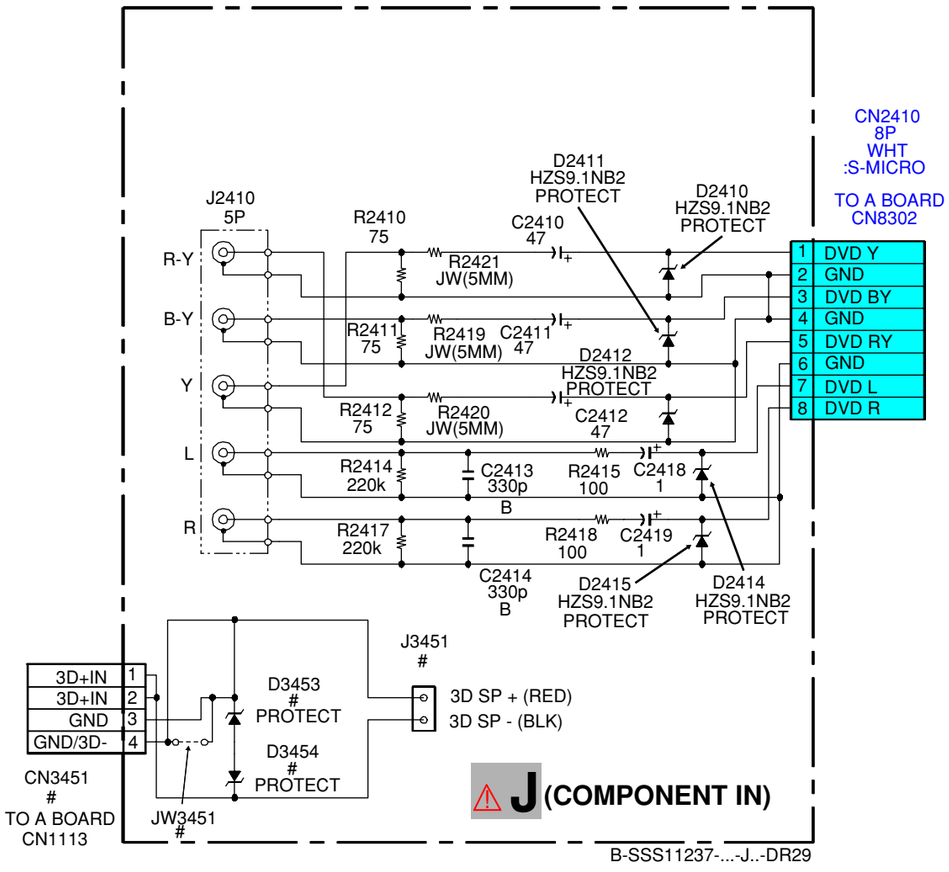
(8) H1 Board Schematic Diagram



KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991

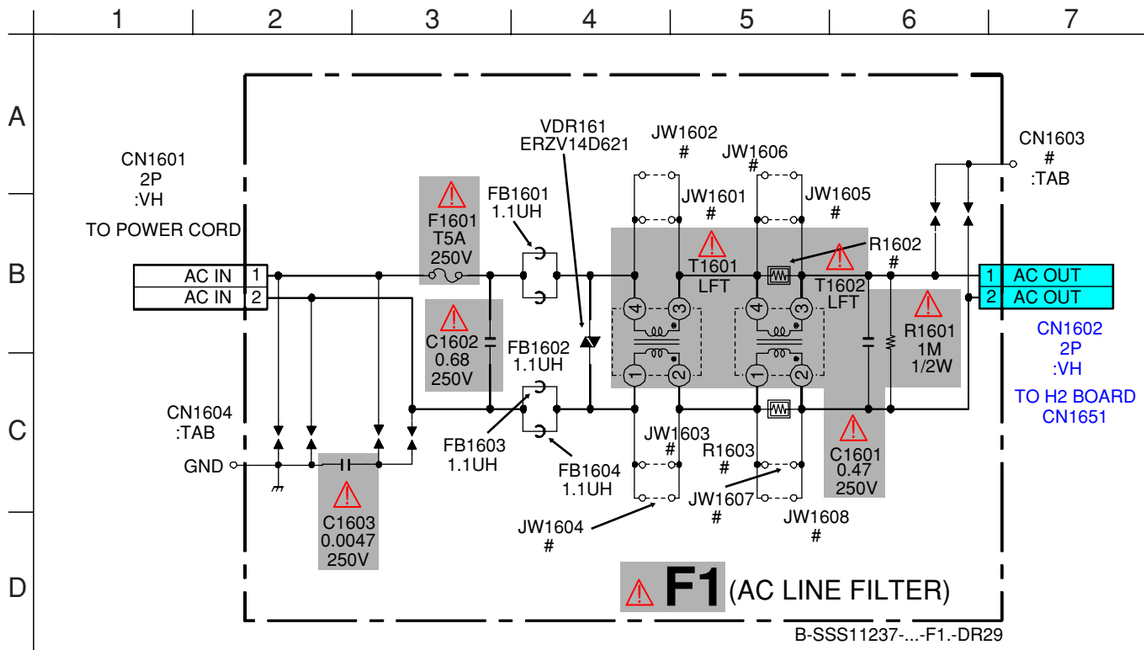
(9) H2 and J Boards Schematic Diagrams

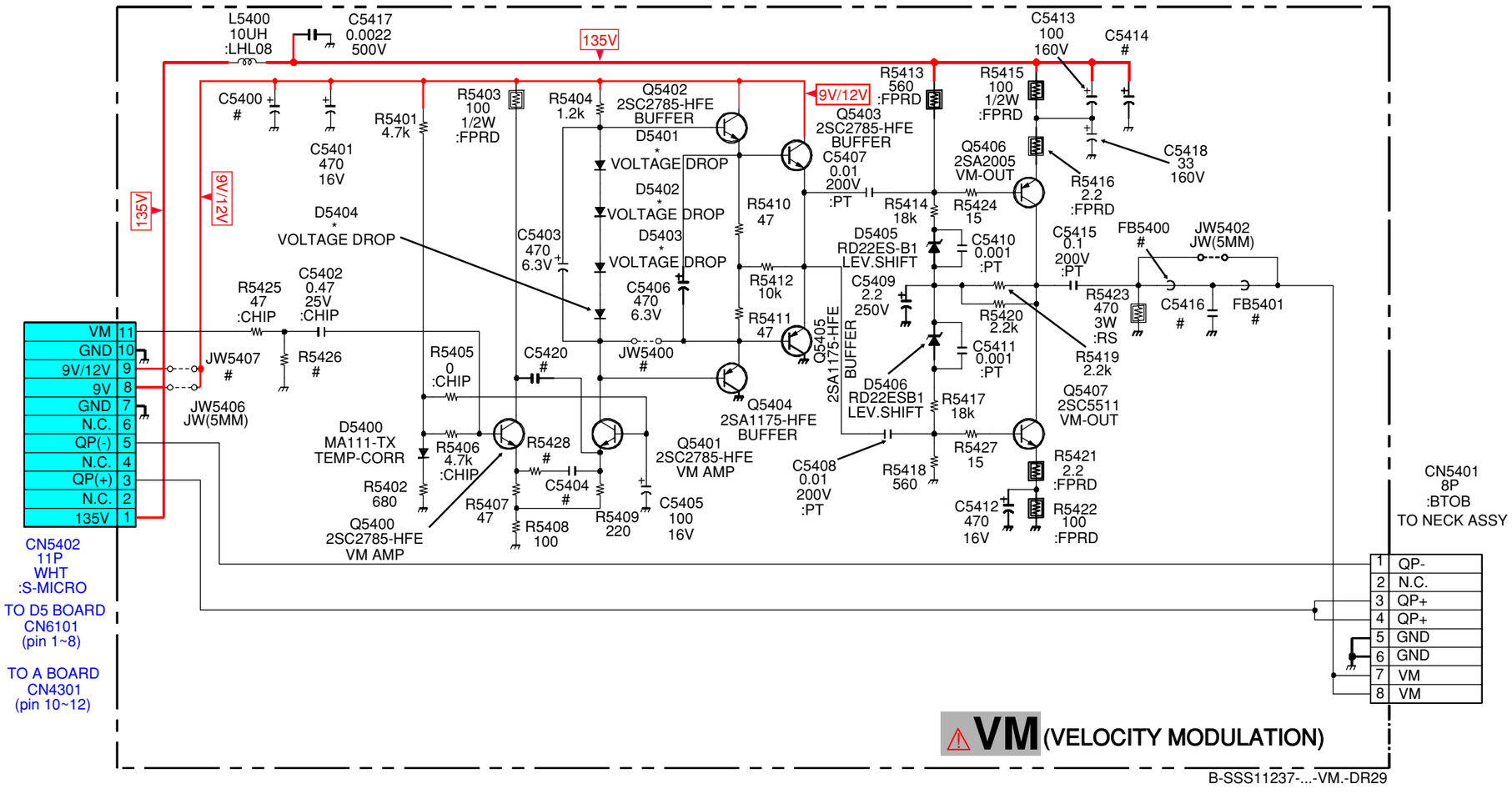


KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991

(10) F1 and VM Boards Schematic Diagrams

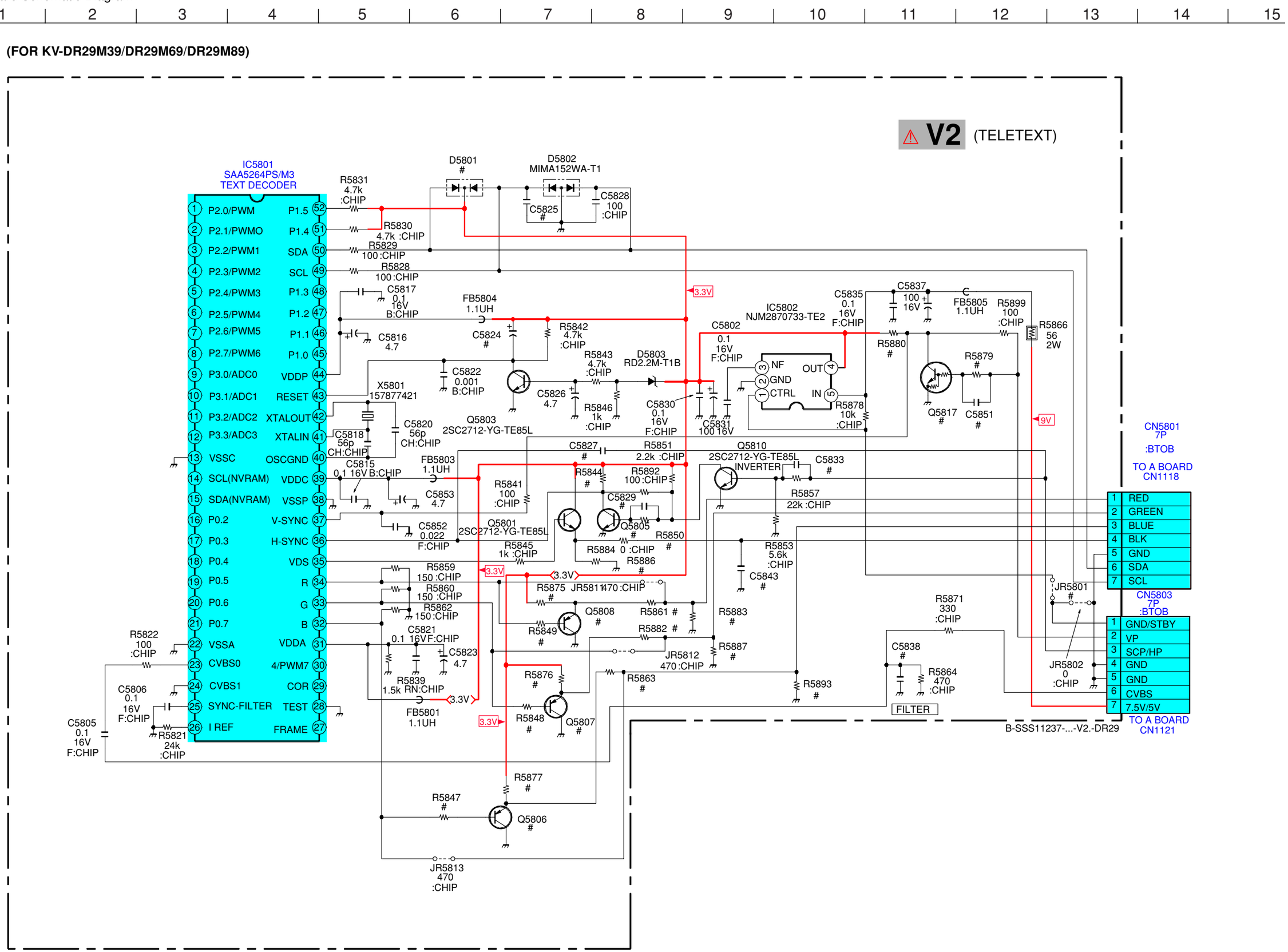


KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991

(11) V2 Board Schematic Diagram

**(FOR KV-DR29M39/DR29M69/DR29M89)**



## A Board ✻ Mark List

| | KV-DR29M39 | KV-DR29M63 | KV-DR29M69 | KV-DR29M89 |
|---|---|---|---|---|
| C1301 | 100 16V | # | 100 16V | 100 16V |
| C1302 | 0.1 :CHIP | # | 0.1 :CHIP | 0.1 :CHIP |
| C3330 | 0.1 16V :CHIP | # | 0.1 16V :CHIP | 0.1 16V :CHIP |
| C3331 | 100 16V | # | 100 16V | 100 16V |
| C3336 | 100 16V | # | 100 16V | 100 16V |
| C3338 | 470P :CHIP | # | 470P :CHIP | 470P :CHIP |
| C3350 | 470P :CHIP | # | 470P :CHIP | 470P :CHIP |
| C3351 | 470P :CHIP | # | 470P :CHIP | 470P :CHIP |
| C3352 | 470P :CHIP | # | 470P :CHIP | 470P :CHIP |
| C3353 | 100 16V | # | 100 16V | 100 16V |
| C3354 | 47 | # | 47 | 47 |
| C3355 | 47 | # | 47 | 47 |
| C8315 | 1 16V :CHIP | # | 1 16V :CHIP | 1 16V :CHIP |
| C8316 | 1 16V :CHIP | # | 1 16V :CHIP | 1 16V :CHIP |
| C8377 | 1 16V :CHIP | # | 1 16V :CHIP | 1 16V :CHIP |
| C8378 | 1 16V :CHIP | # | 1 16V :CHIP | 1 16V :CHIP |
| C8380 | 1 16V :CHIP | # | 1 16V :CHIP | 1 16V :CHIP |
| C8383 | 1 16V :CHIP | # | 1 16V :CHIP | 1 16V :CHIP |
| C8384 | 1 16V :CHIP | # | 1 16V :CHIP | 1 16V :CHIP |
| C8385 | 1 16V :CHIP | # | 1 16V :CHIP | 1 16V :CHIP |
| CN1118 | 7P :BTOB | # | 7P :BTOB | 7P :BTOB |
| CN8402 | 20P :BTOB | # | 20P :BTOB | 20P :BTOB |
| D1200 | DTZ-TT11-16B | UDZS-TE17-16B | DTZ-TT11-16B | DTZ-TT11-16B |
| D2200 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D2201 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8301 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8302 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8303 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8304 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8305 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8306 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8307 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8308 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8309 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8310 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8311 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8312 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8313 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8314 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8315 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8316 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8320 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8321 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8322 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8323 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8324 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| D8325 | RD9.1S-B | UDZS-TE179.1B | RD9.1S-B | RD9.1S-B |
| FB1300 | 0 :CHIP | # | 0 :CHIP | 0 :CHIP |
| IC003 | BR24C16F-E2 | M24C16-MN6T(A) | BR24C16F-E2 | BR24C16F-E2 |
| JR109 | # | # | # | 0 :CHIP |
| JR1301 | 0 :CHIP | # | 0 :CHIP | 0 :CHIP |
| JR1303 | 0 :CHIP | # | 0 :CHIP | 0 :CHIP |
| L1300 | 10UH | # | 10UH | 10UH |
| L3302 | 10UH | # | 10UH | 10UH |
| L3303 | 10UH | # | 10UH | 10UH |
| L3304 | 10UH | # | 10UH | 10UH |
| L3305 | 10UH | # | 10UH | 10UH |
| L3306 | 10UH | # | 10UH | 10UH |
| Q1205 | 2SC2712-YG | 2SD601A-Q | 2SC2712-YG | 2SC2712-YG |
| Q1206 | 2SC2712-YG | 2SD601A-Q | 2SC2712-YG | 2SC2712-YG |
| Q3300 | MSB709-RT1 | # | MSB709-RT1 | MSB709-RT1 |
| R3300 | 560 :CHIP | # | 560 :CHIP | 560 :CHIP |
| R3304 | 470 :CHIP | # | 470 :CHIP | 470 :CHIP |
| R3320 | 10K :CHIP | # | 10K :CHIP | 10K :CHIP |
| R3323 | 100 :CHIP | # | 100 :CHIP | 100 :CHIP |
| R3334 | 100 :CHIP | # | 100 :CHIP | 100 :CHIP |
| R3362 | 100 :CHIP | # | 100 :CHIP | 100 :CHIP |
| R3374 | 0 :CHIP | # | 0 :CHIP | 0 :CHIP |
| R8317 | 5.6K :CHIP | # | 5.6K :CHIP | 5.6K :CHIP |
| R8318 | 5.6K :CHIP | # | 5.6K :CHIP | 5.6K :CHIP |
| R8319 | 470 :CHIP | # | 470 :CHIP | 470 :CHIP |
| R8320 | 330 :CHIP | # | 330 :CHIP | 330 :CHIP |

## A Board ✲ Mark List

| | KV-DR29M39 | KV-DR29M63 | KV-DR29M69 | KV-DR29M89 |
|---|---|---|---|---|
| R8362 | 330 :CHIP | # | 330 :CHIP | 330 :CHIP |
| R8368 | 330 :CHIP | # | 330 :CHIP | 330 :CHIP |
| TU101 | BTF-WG442 | BTF-WG441 | BTF-WG442 | BTF-LG434 |
| TU3301 | BTF-LG434 | # | BTF-LG434 | BTF-LG434 |

Note: The parts indicated as "#" in this circuit diagram are not listed here, as they are not used for these models.

## D Board ✲ Mark List

| | KV-DR29M39 | KV-DR29M63 | KV-DR29M69 | KV-DR29M89 |
|---|---|---|---|---|
| C6602 | 0.033 630V | 0.033 630V | # | # |
| C6606 | # | # | 100P :CHIP | 100P :CHIP |
| C6609 | # | # | 1 | 1 |
| C6610 | # | # | 100P :CHIP | 100P :CHIP |
| C6611 | # | # | 1000P 25V :CHIP | 1000P 25V :CHIP |
| C6612 | 10 | 10 | # | # |
| C6615 | 100P :CHIP | 100P :CHIP | # | # |
| C6616 | 2.2 | 2.2 | # | # |
| C6618 | 0.01 16V :CHIP | 0.01 16V :CHIP | # | # |
| C6621 | # | # | 1200 250V | 1200 250V |
| C6622 | # | # | 1200 250V | 1200 250V |
| C6624 | 33 | 33 | # | # |
| C6629 | 560 450V | 560 450V | # | # |
| C6846 | 0.18 250V :PP | 0.18 250V :PP | # | # |
| C6885 | 220P 2KV :CHIP | 220P 2KV :CHIP | # | # |
| CN6602 | 2P | # | 2P | 2P |
| CN6603 | 2P | 2P | 3P | 3P |
| CN6804 | 3P | 3P | # | # |
| D6602 | # | # | MMDL914T1 | MMDL914T1 |
| D6603 | # | # | MMDL914T1 | MMDL914T1 |
| D6604 | # | # | MMDL914T1 | MMDL914T1 |
| D6609 | # | # | 1SS119-25 | 1SS119-25 |
| D6610 | # | # | MMDL914T1 | MMDL914T1 |
| D6611 | # | # | MMDL914T1 | MMDL914T1 |
| D6612 | # | # | UO5G | UO5G |
| D6613 | # | # | UO5G | UO5G |
| D6648 | # | # | RD12ES-B1 | RD12ES-B1 |
| IC6601 | UPC1093J-1-T | UPC1093J-1-T | # | # |
| IC6608 | UPC339C | UPC339C | # | # |
| JW6601 | 7.5MM | 7.5MM | 7.5MM | # |
| JW6602 | 7.5MM | 7.5MM | 7.5MM | # |
| JW6804 | 5MM | 5MM | # | # |
| JW6895 | 7.5MM | 7.5MM | # | # |
| JW6896 | 7.5MM | 7.5MM | # | # |
| Q6602 | # | # | 2SC2785-HFE | 2SC2785-HFE |
| Q6605 | 2SC2712-YG | 2SC2712-YG | # | # |
| Q6614 | 2SA1175-HFE | 2SA1175-HFE | # | # |
| R6603 | 10K :CHIP | 10K :CHIP | # | # |
| R6604 | 10K :CHIP | 10K :CHIP | # | # |
| R6605 | # | # | 120K :RN | 120K :RN |
| R6606 | # | # | 75K :RN | 75k :RN |
| R6607 | # | # | 680K :RN | 680K :RN |
| R6608 | # | # | 680K :RN | 680K :RN |
| R6609 | # | # | 680K :RN | 680K :RN |
| R6610 | # | # | 100K :CHIP | 100K :CHIP |
| R6611 | 4.7K :CHIP | 4.7K :CHIP | # | # |
| R6612 | # | # | 120K :RN | 120K :RN |
| R6613 | # | # | 680K :RN | 680K :RN |
| R6614 | # | # | 680K :RN | 680K :RN |
| R6615 | # | # | 680K :RN | 680K :RN |
| R6616 | # | # | 100K :CHIP | 100K :CHIP |
| R6617 | # | # | 390K :CHIP | 390K :CHIP |
| R6618 | # | # | 75K :RN | 75K :RN |
| R6619 | # | # | 470K :CHIP | 470K :CHIP |
| R6620 | # | # | 470K :CHIP | 470K :CHIP |
| R6621 | # | # | 10K :CHIP | 10K :CHIP |
| R6623 | # | # | 150 1W :RS | 150 1W :RS |
| R6624 | 100K :CHIP | 100K :CHIP | # | # |
| R6628 | 10K :CHIP | 10K :CHIP | # | # |
| R6633 | 36K :RN | 36K :RN | # | # |
| R6634 | 680K :RN | 680K :RN | # | # |

## D Board ✲ Mark List

| | KV-DR29M39 | KV-DR29M63 | KV-DR29M69 | KV-DR29M89 |
|---|---|---|---|---|
| R6635 | 680K :RN | 680K :RN | # | # |
| R6636 | 680K :RN | 680K :RN | # | # |
| R6637 | 56K :RN | 56K :RN | # | # |
| R6638 | 2.2 | 2.2 | 1.0 15W | 1.0 15W |
| R6639 | # | # | 1.0 15W | 1.0 15W |
| R6640 | # | # | 22K :CHIP | 22K :CHIP |
| R6641 | # | # | 470K 1/2W | 470K 1/2W |
| R6642 | # | # | 470K 1/2W | 470K 1/2W |
| R6643 | # | # | 22K :CHIP | 22K :CHIP |
| R6648 | 4.7K :CHIP | 4.7K :CHIP | # | # |
| R6654 | 47K :CHIP | 47K :CHIP | # | # |
| R6699 | 10K :CHIP | 10K :CHIP | # | # |
| R6701 | 10K :CHIP | 10K :CHIP | # | # |
| R6702 | 39K :CHIP | 39K :CHIP | # | # |
| R6713 | 47K :CHIP | 47K :CHIP | # | # |
| RY6602 | # | # | “RELAY,AC POWER” | “RELAY,AC POWER” |
| VD6603 | ERZV140621 | ERZV140621 | # | # |

Note: The parts indicated as "#" in this circuit diagram are not listed here, as they are not used for these models.

## C Board ✲ Mark List

| | KV-DR29M39 | KV-DR29M63 | KV-DR29M69 | KV-DR29M89 |
|---|---|---|---|---|
| CN9002 | 3P | 4P | 3P | 3P |
| D9005 | MA111-TX | MMDL914T1 | MA111-TX | MA111-TX |
| Q9001 | 2SA1037AK-T146 | MSB709-RT1 | 2SA1037AK-T146 | 2SA1037AK-T146 |
| Q9009 | 2SA1037AK-T146 | MSB709-RT1 | 2SA1037AK-T146 | 2SA1037AK-T146 |
| Q9010 | 2SA1037AK-T146 | MSB709-RT1 | 2SA1037AK-T146 | 2SA1037AK-T146 |
| Q9011 | 2SA1037AK-T146 | MSB709-RT1 | 2SA1037AK-T146 | 2SA1037AK-T146 |

Note: The parts indicated as "#" in this circuit diagram are not listed here, as they are not used for these models.

## D5 Board ✲ Mark List

| | KV-DR29M39 | KV-DR29M63 | KV-DR29M69 | KV-DR29M89 |
|---|---|---|---|---|
| Q6001 | DTC144EKA | UN2213 | DTC144EKA | DTC144EKA |
| Q6002 | 2SD601A-Q-TX | MSD601-RT1 | 2SD601A-Q-TX | 2SD601A-Q-TX |
| Q6219 | 2SD601A-Q-TX | MSD601-RT1 | 2SD601A-Q-TX | 2SD601A-Q-TX |
| Q6440 | 2SD601A-Q-TX | MSD601-RT1 | 2SD601A-Q-TX | 2SD601A-Q-TX |
| Q6508 | 2SD601A-Q-TX | MSD601-RT1 | 2SD601A-Q-TX | 2SD601A-Q-TX |

Note: The parts indicated as "#" in this circuit diagram are not listed here, as they are not used for these models.

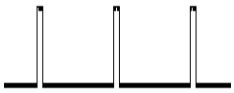
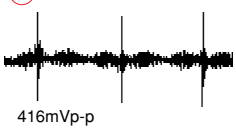
## VM Board ✲ Mark List

| | KV-DR29M39 | KV-DR29M63 | KV-DR29M69 | KV-DR29M89 |
|---|---|---|---|---|
| D5401 | D1NS4 | 11EQS04 | D1NS4 | D1NS4 |
| D5402 | 1SS119-25 | 1SS133T-77 | 1SS119-25 | 1SS119-25 |
| D5403 | 1SS119-25 | 1SS133T-77 | 1SS119-25 | 1SS119-25 |
| D5404 | 1SS119-25 | 1SS133T-77 | 1SS119-25 | 1SS119-25 |

Note: The parts indicated as "#" in this circuit diagram are not listed here, as they are not used for these models.

## 7-3. VOLTAGE LIST AND WAVEFORM

A BOARD VOLTAGE LIST AND WAVEFORM

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| IC001 | 1 | 4.9 |
| | 2 | 5.0 |
| | 3 | 0 |
| | 4 | 0 |
| | 5 | 0 |
| | 6 | 0 |
| | 7 | 0.4 |
| | ①  5.0Vp-p | |
| | 8 | 0 |
| | 9 | 4.9 |
| | 10 | 0 |
| | 11 | 2.3 |
| | ② 3.2Vp-p | |
| | 12 | 2.3 |
| | 13 | 4.9 |
| | 14 | 4.8 |
| | 15 | 0.9 |
| | 16 | 0.9 |
| | 17 | (2.4)[3.1] |
| | 18 | 3.1 |
| | 19 | 4.9 |
| | 20 | 0.9 |
| | 21 | 4.8 |
| | 22 | 0 |
| | 23 | 0 |
| | 24 | 4.8 |
| | 25 | 0 |
| | 26 | 0 |
| | 27 | 4.9 |
| | 28 | 0 |
| | 29 | 4.7 |
| | 30 | 4.9 |
| | 31 | 4.7 |
| | 32 | 0 |
| | ③  416mVp-p | |
| | 33 | 0 |
| | ④ 384mVp-p | |
| | 34 | 0 |
| | ⑤ 384mVp-p | |
| | 35 | 4.9 |
| | 36 | 0 |
| | 37 | 0 |
| | 38 | 2.4 |
| | 39 | 2.4 |

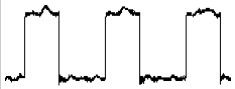
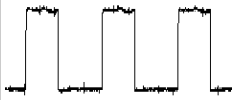
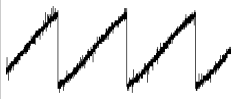
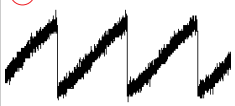
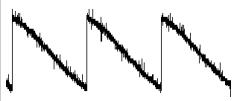
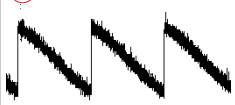
| Ref | Pin No. | Voltage[v] |
|---|---|---|
| | 40 | 4.7 |
| | 41 | 4.9 |
| | 42 | 0 |
| | 43 | 0 |
| | 44 | 0 |
| | 45 | 0 |
| | 46 | 0 |
| | 47 | 4.9 |
| | 48 | 4.4 |
| | 49 | 4.9 |
| | 50 | 4.4 |
| | 51 | 0 |
| | 52 | 0 |
| | 53 | 0 |
| | 54 | 0 |
| | 55 | 0 |
| | 56 | 0 |
| | 57 | 0.8 |
| | 58 | 0 |
| | 59 | 0 |
| | 60 | 0 |
| | 61 | 0 |
| | 62 | 4.3 |
| | 63 | 0 |
| | 64 | 4.8 |
| IC002 | 1 | 0 |
| | 2 | 4.9 |
| | 3 | 4.9 |
| | 4 | 7.1 |
| | 5 | 4.9 |
| | 6 | 0 |
| | 7 | 0.9 |
| IC003 | 1 | 0 |
| | 2 | 0 |
| | 3 | 0 |
| | 4 | 0 |
| | 5 | 4.9 |
| | 6 | 4.9 |
| | 7 | 0 |
| | 8 | 4.9 |
| IC100 | 1 | 4.9 |
| | 2 | 4.9 |
| | 3 | 0 |
| IC1200 | 1 | 4.5 |
| | 2 | 4.5 |
| | 3 | 4.5 |
| | 4 | 0 |
| | 5 | 4.5 |
| | 6 | 4.5 |
| | 7 | 4.5 |
| | 8 | 8.9 |
| IC1201 | 1 | 0 |
| | 2 | 0 |
| | 3 | 0 |
| | 4 | 4.4 |
| | 5 | 4.4 |
| | 6 | 0 |
| | 7 | 4.4 |
| | 8 | 4.4 |
| | 9 | 4.4 |
| | 10 | 4.4 |
| | 11 | 4.4 |
| | 12 | 4.4 |
| | 13 | 0 |
| | 14 | 2.5 |
| | 15 | 8.9 |
| | 16 | 0 |
| | 17 | 4.5 |
| | 18 | 4.3 |
| | 19 | 2.5 |
| | 20 | 0 |
| | 21 | 4.4 |

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| | 22 | 4.4 |
| | 23 | 4.4 |
| | 24 | 4.4 |
| | 25 | 4.4 |
| | 26 | 4.4 |
| | 27 | 4.4 |
| | 28 | 4.4 |
| | 29 | 4.4 |
| | 30 | 4.4 |
| | 31 | 3.2 |
| | 32 | 4.4 |
| IC1203 | 1 | 4.5 |
| | 2 | 4.5 |
| | 3 | 4.4 |
| | 4 | 0 |
| | 5 | 4.4 |
| | 6 | 4.5 |
| | 7 | 4.5 |
| | 8 | 8.9 |
| IC1204 | 1 | 0 |
| | 2 | 0 |
| | 3 | 28.0 |
| | 4 | 0 |
| | 5 | 0 |
| | 6 | 2.9 |
| | 7 | 14.0 |
| | 8 | 2.9 |
| | 9 | 0 |
| | 10 | 29.0 |
| | 11 | 14.0 |
| | 12 | 14.0 |
| IC1205 | 1 | 4.5 |
| | 2 | 4.5 |
| | 3 | 0 |
| | 4 | 4.5 |
| | 5 | 4.8 |
| | 6 | 0.5 |
| | 7 | 0 |
| | 8 | 0.5 |
| | 9 | 0.5 |
| | 10 | 0 |
| | 11 | 0.5 |
| | 12 | 0.5 |
| | 13 | 4.9 |
| | 14 | 8.9 |
| IC1207 | 1 | 4.4 |
| | 2 | 4.5 |
| | 3 | 4.5 |
| | 4 | 4.5 |
| | 5 | 4.6 |
| | 6 | 4.5 |
| | 7 | 4.5 |
| | 8 | 4.5 |
| | 9 | 4.5 |
| | 10 | 4.5 |
| | 11 | 4.5 |
| | 12 | 4.5 |
| | 13 | 4.5 |
| | 14 | 0.7 |
| | 15 | 3.1 |
| | 16 | 3.3 |
| | 17 | 3.3 |
| | 18 | * |
| | 19 | * |
| | 20 | * |
| | 21 | 9.0 |
| | 22 | 7.6 |
| | 23 | 3.3 |
| | 24 | 3.1 |
| | 25 | 3.4 |
| | 26 | 3.0 |
| | 27 | 0.6 |
| | 28 | 4.6 |

A BOARD VOLTAGE LIST AND WAVEFORM

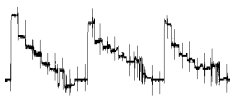
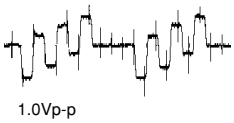
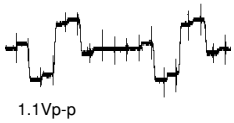
| Ref | Pin No. | Voltage[v] |
|---|---|---|
| | 29 | 4.6 |
| | 30 | 4.5 |
| | 31 | 4.6 |
| | 32 | 4.6 |
| | 33 | 4.5 |
| | 34 | 4.5 |
| | 35 | 4.5 |
| | 36 | 4.5 |
| | 37 | 4.5 |
| | 38 | 4.5 |
| | 39 | 4.5 |
| | 40 | 4.5 |
| IC1208 | 1 | 0 |
| | 2 | 0 |
| | 3 | 8.9 |
| | 4 | 4.4 |
| | 5 | 4.4 |
| | 6 | 4.5 |
| | 7 | 4.5 |
| | 8 | 0 |
| | 9 | 4.4 |
| | 10 | 4.4 |
| | 11 | 4.4 |
| | 12 | 4.4 |
| | 13 | 4.4 |
| | 14 | 4.74 |
| | 15 | 4.4 |
| | 16 | 4.4 |
| IC2200 | 1 | 4.5 |
| | 2 | 4.5 |
| | 3 | 4.4 |
| | 4 | 0 |
| | 5 | 4.3 |
| | 6 | 4.4 |
| | 7 | 4.5 |
| | 8 | 8.9 |
| IC2600 | I | 10.0 |
| | G | 0 |
| | O | 9.0 |
| IC2601 | I | 6.3 |
| | G | 0 |
| | O | 5.0 |
| IC2602 | I | 9.5 |
| | G | 0 |
| | O | 4.9 |
| IC2603 | I | 5.6 |
| | G | 0 |
| | O | 3.3 |
| IC3001 | 1 | 2.8 |
| | 2 | 2.8 |
| | 3 | 2.7 |
| | 4 | 0 |
| | 5 | 1.1 |
| | 6 | 0 |
| | 7 | 2.8 |
| | 8 | 2.8 |
| | 9 | 2.8 |
| | 10 | 1.1 |
| | 11 | 1.1 |
| | 12 | 5.0 |
| | 13 | 4.1 |
| | 14 | 4.0 |
| | 15 | 2.9 |
| | 16 | 2.7 |
| | 17 | 0 |
| | 18 | 1.0 |
| | 19 | 0 |
| | 20 | 2.9 |
| | 21 | 0 |
| | 22 | 0.3 |
| | 23 | 0 |
| | 24 | 0 |
| | 25 | 2.8 |

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| | 26 | 2.8 |
| | 27 | 3.1 |
| | 28 | 5.0 |
| | 29 | 0 |
| | 30 | 4.3 |
| | 31 | 4.3 |
| | 32 | 2.5 |
| | 33 | 2.9 |
| | 34 | 2.9 |
| | 35 | 2.8 |
| | 36 | 1.3 |
| | 37 | 1.0 |
| | 38 | 1.1 |
| | 39 | 2.5 |
| | 40 | 5.0 |
| | 41 | 2.8 |
| | 42 | 2.8 |
| | 43 | 2.8 |
| | 44 | 1.1 |
| | 45 | 1.1 |
| | 46 | (1.2)[0.8] |
| | 47 | 2.5 |
| | 48 | 0 |
| IC3002 | 1 | 0 |
| | 2 | 0 |
| | 3 | 0.5 |
| | 4 | 0.5 |
| | 5 | 0.5 |
| | 6 | 0 |
| | 7 | 0 |
| | 8 | 0 |
| | 9 | 4.9 |
| | 10 | 4.9 |
| | 11 | 4.9 |
| | 12 | 0.3 |
| | 13 | 0.3 |
| | 14 | 0.3 |
| | 15 | 0 |
| | 16 | 8.9 |
| IC3003 | 1 | 4.6 |
| | 2 | 0 |
| | 3 | 3.1 |
| | 4 | 0 |
| | 5 | 3.1 |
| | 6 | 3.1 |
| | 7 | 0 |
| | 8 | 4.6 |
| | 9 | 4.6 |
| | 10 | 0 |
| | 11 | 4.6 |
| | 12 | 0 |
| | 13 | 8.9 |
| | 14 | 4.7 |
| | 15 | 0 |
| | 16 | 4.6 |
| IC4301 | 1 | 0 |
| | 2 | 0 |
| | 3 | 0 |
| | 4 | 3.1 |
| | 5 | 3.1 |
| | 6 | 3.1 |
| | 7 | 0 |
| | 8 | 3.5 |
| | 9 | 3.5 |
| | 10 | 3.5 |
| | 11 | 0 |
| | 12 | 0 |
| | 13 | 0 |
| | 14 | 2.4 |
| | 15 | 4.9 |
| | 16 | 2.5 |
| | 17 | 2.6 |
| | 18 | 1.2 |
| | 19 | 4.9 |

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| | 20 | 3.6 |
| | 21 | 0 |
| | 22 | 3.4 |
| | 23 | 5.0 |
| | 24 | 0 |
| | 25 | 4.5 |
| | 26 | 4.5 |
| | 27 | 0.9 |
| | 28 | 0.3 |
| | 29 | 5.0 |
| | 30 | 5.7 |
| | 31 | 1.3 |
| | 32 | 3.1 |
| | 33 | 1.6 |
| | 34 | 0 |
| | 35 | 0.8 |
| | 36 | 0.8 |
| | 37 | 3 |
| | 38 | 2.1 |
| | 39 | 0.6 |
| | 40 | 2.8 |
| ⑩ PAL  4.5Vp-p | | |
| ⑩ NTSC3.58  4.0Vp-p | | |
| | 41 | 0 |
| | 42 | 0 |
| | 43 | 3.3 |
| | 44 | 0 |
| | 45 | 3.4 |
| | 46 | 3.3 |
| | 47 | 3.1 |
| | 48 | 4.4 |
| | 49 | 4.7 |
| | 50 | 5.2 |
| | 51 | 3.8 |
| | 52 | 3.4 |
| ⑪ PAL  1.7Vp-p | | |
| ⑪ NTSC3.58  1.9Vp-p | | |
| | 53 | 3.4 |
| ⑫ PAL  1.8Vp-p | | |
| ⑫ NTSC3.58  2.0Vp-p | | |
| | | |

A BOARD VOLTAGE LIST AND WAVEFORM

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| | 54 | 0.6 |
| | 55 | 8.9 |
| | 56 | 1.0 |
| | 57 | 4.3 |
| | 58 | 4.4 |
| | 59 | 1.7 |
| | 60 | 1.7 |
| | 61 | 8.9 |
| | 62 | 2.2 |
| | 63 | 2.2 |
| | 64 | 2.3 |
| IC4302 | I | 8.9 |
| | G | 0 |
| | O | 4.9 |
| IC4304 | 1 | 7.8 |
| | 2 | 1.1 |
| | 3 | 1.2 |
| | 4 | 0 |
| | 5 | 0.8 |
| | 6 | 0.8 |
| | 7 | 2.9 |
| | 8 | 8.9 |
| IC8302 | 1 | 3.9 |
| | 2 | 4.4 |
| | 3 | 3.9 |
| | 4 | 4.4 |
| | 5 | 4.4 |
| | 6 | 0.1 |
| | 7 | 4.9 |
| | 8 | 3.9 |
| | 9 | 4.4 |
| | 10 | 3.9 |
| | 11 | 4.4 |
| | 12 | 4.4 |
| | 13 | 0.1 |
| | 14 | 4.9 |
| | 15 | 3.9 |
| | 16 | 4.4 |
| | 17 | 3.9 |
| | 18 | 4.4 |
| | 19 | 4.4 |
| | 20 | 0.1 |
| | 21 | 4.9 |
| | 22 | 3.9 |
| | 23 | 4.4 |
| | 24 | 3.9 |
| | 25 | 4.4 |
| | 26 | 4.4 |
| | 27 | 0.1 |
| | 28 | 4.9 |
| | 29 | 4.4 |
| | 30 | 3.9 |
| | 31 | 4.4 |
| | 32 | 0 |
| | 33 | 4.4 |
| | 34 | 4.4 |
| | 35 | 0 |
| | 36 | 0 |
| | 37 | 4.4 |
| | 38 | 4.4 |
| | 39 | 3.7 |
| | 40 | 4.4 |
| | 41 | 4.5 |
| | 42 | 8.9 |
| | 43 | 4.4 |
| | 44 | 4.2 |
| | 45 | 4.4 |
| | 46 | 3.7 |
| | 47 | 4.4 |
| | 48 | 0 |
| | 49 | 3.9 |
| | 50 | 4.4 |

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| | 51 | 4.4 |
| | 52 | 4.4 |
| | 53 | 4.4 |
| | 54 | 0 |
| | 55 | 3.7 |
| | 56 | 3.2 |
| | 57 | 0 |
| | 58 | 4.3 |
| | 59 | 4.4 |
| | 60 | 4.3 |
| | 61 | 4.4 |
| | 62 | 4.4 |
| | 63 | 4.3 |
| | 64 | 4.4 |
| IC8306 | 1 | 2.2 |
| | 2 | 1.8 |
| | 3 | 1.2 |
| | 4 | 0.1 |
| | 5 | 2.2 |
| | 6 | 5.0 |
| | 7 | 2.5 |
| | 8 | 0 |
| | 9 | 0.3 |
| | 10 | 0.8 |
| | 11 | 2.3 |
| | 12 | 5.0 |
| | 13 | 4.5 |
| | 14 | 4.5 |
| | 15 | 0 |
| | 16 | 0 |
| | 17 | 2.5 |
| | 18 | 2.5 |
| | 19 | 1.3 |
| | 20 | 2.3 |
| | ⑨ 600mVp-p | |
| | 21 | 1.7 |
| | ⑧ PAL  1.2Vp-p | |
| | ⑧ NTSC3.58 960mVp-p | |
| | 22 | 1.8 |
| | ⑦  1.0Vp-p | |
| | 23 | 1.8 |
| | ⑥  1.1Vp-p | |
| | 24 | 0 |
| | 25 | 2 |

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| | 26 | 1.9 |
| | 27 | 1.9 |
| | 28 | 0 |
| | 29 | 0 |
| | 30 | 2.5 |
| | 31 | 1.7 |
| | 32 | 5.0 |
| | 33 | 2.5 |
| | 34 | 2.5 |
| | 35 | 2.5 |
| | 36 | 0 |
| | 37 | 1.1 |
| | 38 | 4.0 |
| | 39 | 1.7 |
| | 40 | 3.1 |
| | 41 | 2.3 |
| | 42 | 0 |
| | 43 | 1.7 |
| | 44 | 2.3 |
| | 45 | 0 |
| | 46 | 3.1 |
| | 47 | 3.8 |
| | 48 | 1.7 |
| IC8309 | 1 | 3.0 |
| | 2 | 5.3 |
| | 3 | 2.7 |
| | 4 | 0 |
| | 5 | 0 |
| | 6 | 8.9 |
| | 7 | 2.0 |
| | 8 | 0 |
| IC8310 | 1 | 0.8 |
| | 2 | 0 |
| | 3 | 0 |
| | 4 | 0 |
| | 5 | 0 |
| | 6 | 2.1 |
| | 7 | 0 |
| | 8 | 4.7 |
| | 9 | 5.5 |
| | 10 | 0 |
| | 11 | 4.4 |
| | 12 | 0 |
| | 13 | 0 |
| | 14 | 4.4 |
| | 15 | 5.1 |
| | 16 | 2.7 |
| | 17 | 2.7 |
| | 18 | 0 |
| | 19 | 3.1 |
| | 20 | 8.2 |
| | 21 | 2.4 |
| | 22 | 1.1 |
| | 23 | 0 |
| | 24 | 0 |
| IC8312 | 1 | 5.0 |
| | 2 | 0.3 |
| | 3 | 0 |
| | 4 | 0.3 |
| | 5 | 5.0 |
| Q001 | B | 4.8 |
| | C | 0 |
| | E | 0.9 |
| Q002 | B | 0 |
| | C | 4.9 |
| | E | 0 |
| Q003 | B | 0.3 |
| | C | 4.9 |
| | E | 0.3 |
| Q004 | B | 0.1 |
| | C | 0 |
| | E | 0 |

A BOARD VOLTAGE LIST AND WAVEFORM

| Ref | Pin No. | Voltage[v] | Ref | Pin No. | Voltage[v] | Ref | Pin No. | Voltage[v] |
|---|---|---|---|---|---|---|---|---|
| Q008 | B | 0 | Q3300 | B | 3.7 | Q4323 | B | 4.0 |
| | C | 0.2 | | C | 0 | | C | 8.9 |
| | E | 0 | | E | 4.3 | | E | 3.4 |
| Q101 | B | 2.8 | Q3015 | B | 1.9 | Q4324 | B | 4.0 |
| | C | 0 | | C | 4.9 | | C | 8.9 |
| | E | 3.4 | | E | 1.1 | | E | 3.4 |
| Q301 | B | 10.0 | Q3018 | B | 1.9 | Q4330 | B | 6.7 |
| | C | 0 | | C | 4.9 | | C | 0 |
| | E | 10.0 | | E | 1.1 | | E | 7.3 |
| Q302 | B | 10.7 | Q3024 | B | 4.4 | Q4333 | B | 0 |
| | C | (0)[-0.3] | | C | 0.1 | | C | 2.8 |
| | E | 10.4 | | E | 5.0 | | E | 0 |
| Q313 | B | 0 | Q3025 | B | 0.1 | Q8301 | B | 4.4 |
| | C | 10.0 | | C | 5.0 | | C | 0 |
| | E | 0.5 | | E | 0 | | E | 5.0 |
| Q1200 | B | 2.4 | Q4301 | B | 5.7 | Q8302 | B | 4.3 |
| | C | 0.5 | | C | 8.9 | | C | 8.9 |
| | E | 0 | | E | 5.0 | | E | 3.7 |
| Q1201 | B | 2.4 | Q4304 | B | 0 | Q8303 | B | 4.3 |
| | C | 0.4 | | C | 3.1 | | C | 8.9 |
| | E | 0 | | E | 0 | | E | 3.7 |
| Q1202 | B | 2.4 | Q4305 | B | 1.7 | Q8304 | B | 4.3 |
| | C | 0 | | C | 6.7 | | C | 8.9 |
| | E | 0 | | E | 1.1 | | E | 3.7 |
| Q1203 | B | 3.1 | Q4306 | B | 6.4 | Q8305 | B | 2.3 |
| | C | 4.9 | | C | 0 | | C | 5.0 |
| | E | 2.4 | | E | 7.0 | | E | 1.6 |
| Q1205 | B | 5.6 | Q4307 | B | 7.1 | Q8306 | B | 3.9 |
| | C | 8.9 | | C | 8.9 | | C | 8.9 |
| | E | 4.9 | | E | 6.4 | | E | 4.6 |
| Q1206 | B | 2.8 | Q4308 | B | 6.4 | Q8307 | B | 6.0 |
| | C | 5.6 | | C | 7.0 | | C | (0)[8.9] |
| | E | 2.2 | | E | 7.1 | | E | 5.4 |
| Q1207 | B | 14.3 | Q4309 | B | 0 | Q8310 | B | 0.1 |
| | C | -0.5 | | C | 0 | | C | 5 |
| | E | 12.4 | | E | 0.7 | | E | 0.1 |
| Q1208 | B | -0.4 | Q4310 | B | -0.5 | Q8319 | B | 1.8 |
| | C | 13.6 | | C | 8.9 | | C | 0 |
| | E | 0 | | E | 0 | | E | 2.4 |
| Q1209 | B | -0.4 | Q4312 | B | 0 | Q8320 | B | 1.8 |
| | C | 13.6 | | C | 0 | | C | 0 |
| | E | 0 | | E | 0 | | E | 2.5 |
| Q1210 | B | -0.4 | Q4314 | B | 2.9 | Q8321 | B | 1.7 |
| | C | 13.7 | | C | 4.1 | | C | 0 |
| | E | 0 | | E | 2.9 | | E | 2.3 |
| Q2200 | B | 3.7 | Q4315 | B | 0 | Q8326 | B | 0.2 |
| | C | 0 | | C | 4.2 | | C | 3.5 |
| | E | 0 | | E | 0 | | E | 0 |
| Q2201 | B | 3.7 | Q4316 | B | 2.3 | Q8327 | B | 3.6 |
| | C | 0 | | C | 0 | | C | 0.2 |
| | E | 0 | | E | 2.9 | | E | 0 |
| Q3001 | B | 2.4 | Q4317 | B | 2.1 | Q8328 | IB | 0.2 |
| | C | 5.0 | | C | 0 | | C | 5.3 |
| | E | 1.7 | | E | 2.8 | | E | 0 |
| Q3002 | B | 2.4 | Q4318 | B | 2.2 | Q8329 | B | 2.5 |
| | C | 5.0 | | C | 0 | | C | 5.4 |
| | E | 1.7 | | E | 2.8 | | E | 1.8 |
| Q3003 | B | 2.4 | Q4319 | B | 4.2 | Q8330 | B | 5.4 |
| | C | 5.0 | | C | 0 | | C | 8.9 |
| | E | 1.7 | | E | 4.4 | | E | 4.7 |
| Q3004 | B | 2.4 | Q4320 | B | 2.2 | Q8331 | B | 2.5 |
| | C | 5.0 | | C | 8.9 | | C | 6.2 |
| | E | 1.7 | | E | 4.4 | | E | 1.8 |
| Q3005 | B | 3.4 | Q4321 | B | 2.5 | Q8332 | B | 6.2 |
| | C | 4.5 | | C | 0 | | C | 8.9 |
| | E | 2.9 | | E | 3.1 | | E | 5.5 |
| Q3014 | B | 2.9 | Q4322 | B | 3.3 | Q8333 | B | 2.7 |
| | C | 0 | | C | 4.0 | | C | 6.8 |
| | E | 3.5 | | E | 4.0 | | E | 2.1 |

A BOARD VOLTAGE LIST AND WAVEFORM

| Ref | Pin No. | Voltage[v] | Ref | Pin No. | Voltage[v] |
|---|---|---|---|---|---|
| Q8334 | B | 4.3 | Q8361 | B | 3.1 |
| | C | 8.9 | | C | 5.0 |
| | E | 3.6 | | E | 2.5 |
| Q8335 | B | 2.7 | Q8362 | B | 3.1 |
| | C | 6.3 | | C | 5.0 |
| | E | 2.1 | | E | 2.5 |
| Q8336 | B | 4.3 | Q8363 | B | 3.1 |
| | C | 8.9 | | C | 5.0 |
| | E | 3.7 | | E | 2.5 |
| Q8351 | B | 3.1 | Q8364 | B | 1.3 |
| | C | 8.3 | | C | 0 |
| | E | 2.5 | | E | 2.0 |
| Q8352 | B | 8.3 | Q8365 | B | (2.2)[3.1] |
| | C | 4.3 | | C | 5.0 |
| | E | 8.9 | | E | (1.5)[2.4] |
| Q8356 | B | 8.3 | | | |
| | C | 4.0 | | | |
| | E | 8.9 | | | |

VM BOARD VOLTAGE LIST AND WAVEFORM

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| Q5400 | B | 1.5 |
| | C | 8.4 |
| | E | 0.9 |
| Q5401 | B | 1.6 |
| | C | 5.0 |
| | E | 1.0 |
| Q5402 | B | 7.0 |
| | C | 8.9 |
| | E | 6.3 |
| Q5403 | B | 6.3 |
| | C | 8.9 |
| | E | 6.0 |
| Q5404 | B | 5.0 |
| | C | 0 |
| | E | 5.6 |
| Q5405 | B | 5.6 |
| | C | 0 |
| | E | 6.0 |
| Q5406 | B | 134 |
| | C | 68 |
| | E | 135 |
| Q5407 | B | 1.3 |
| | C | 68 |
| | E | 0.8 |

H1 BOARD VOLTAGE LIST AND WAVEFORM

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| Q1901 | B | 0.2 |
| | C | 4.9 |
| | E | 0.2 |
| Q1902 | B | (4.4)[0.1] |
| | C | (1.9)[4.9] |
| | E | (1.7)[0.1] |

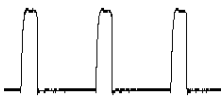
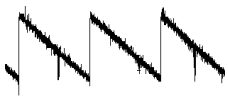
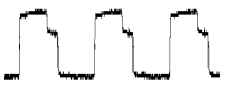
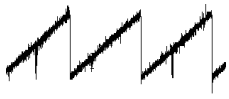
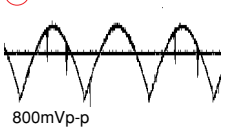
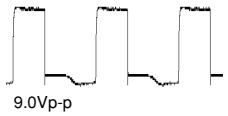
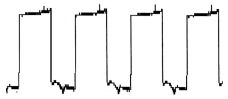
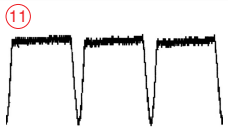
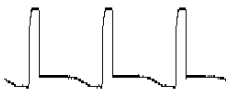
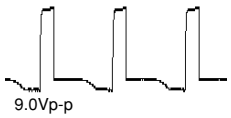
H2 BOARD VOLTAGE LIST AND WAVEFORM

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| IC1901 | 1 | 4.9 |
| | 2 | (4.8)[4.5] |
| | 3 | 0 |

D5 BOARD VOLTAGE LIST AND WAVEFORM

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| IC6100 | 1 | 5.7 |
| | 2 | 2.5 |
| | 3 | 4.3 |
| | 4 | 0 |
| | 5 | 5.0 |
| | 6 | 6.8 |
| | 7 | 8.9 |
| | 8 | 5.0 |
| | 9 | 4.2 |
| | 10 | 2.5 |
| | 11 | 0 |
| | 12 | 0 |
| | 13 | 0 |
| | 14 | 1.1 |
| | 15 | 11.8 |
| | 16 | 8.8 |
| | 17 | 2.0 |
| | 18 | 2.0 |
| | 19 | 0 |
| | 20 | 4.7 |
| | 21 | 0 |
| | 22 | 1.1 |
| IC6201 | 1 | 0.1 |
| | 2 | 8.9 |
| | 3 | 1.5 |
| | 4 | 0 |
| | 5 | (8.9)[2.4] |
| | 6 | (2.0)[4.0] |
| | 7 | (4.1)[2.2] |
| | 8 | (2.3)[8.9] |
| IC6202 | I | 10.3 |
| | G | 0 |
| | O | 5.0 |
| IC6204 | 1 | 7.1 |
| | 2 | 1.4 |
| | 3 | 2.4 |
| | 4 | 0 |
| | 5 | 0.2 |
| | 6 | 1.8 |
| | 7 | 1.0 |
| | 8 | 8.9 |
| IC6205 | 1 | 5.0 |
| | 2 | 5.0 |
| | 3 | 2.9 |
| | 4 | (3.2)[4.2] |
| | 5 | 2.4 |
| | 6 | 2.4 |
| | 7 | (3.1)[2.6] |
| | 8 | 0 |
| | 9 | (0)[2.7] |
| | 10 | (2.8)[0] |
| | 11 | 5.0 |
| | 12 | 5.0 |
| | 13 | 0 |
| | 14 | 4.5 |
| | 15 | 4.4 |
| | 16 | 5.0 |
| IC6206 | I | -15 |
| | G | 0 |
| | O | -12 |
| IC6401 | 1 | 0 |
| | 2 | (0.8)[1.3] |
| | 3 | (0.8)[1.3] |
| | 4 | 0 |
| | 5 | 2.0 |
| | 6 | 2.8 |
| | 7 | 4.8 |
| | 8 | 8.9 |
| IC6402 | 1 | 4.9 |
| | 2 | 2.7 |
| | 3 | 3.5 |
| | 4 | 1.3 |
| | 5 | 0 |
| | 6 | 3.0 |
| | 7 | 3.7 |
| | 8 | 3.7 |
| | 9 | 3.2 |
| | 10 | 3.1 |
| | 11 | 2.4 |
| | 12 | 2.3 |
| | 13 | 1.3 |
| | 14 | 1.0 |
| | 15 | 0 |
| | 16 | 3.2 |
| | 17 | 1.8 |
| | 18 | 3.4 |
| | 19 | 2.6 |
| | 20 | 5.3 |
| | 21 | 2.6 |
| | 22 | 0.9 |
| | 23 | 1.1 |
| | 24 | 5.63 |
| | 25 | 4.2 |
| | 26 | 3.9 |
| | 27 | 2.7 |
| | 28 | 3.9 |
| | 29 | 3.8 |
| | 30 | 8.9 |
| IC6501 | 1 | -11.4 |
| | 2 | -11.4 |
| | 3 | -2.8 |
| | 4 | -2.8 |
| | 5 | -14.2 |
| | 6 | -1.8 |
| | 7 | -1.8 |
| | 8 | 6.7 |
| | 9 | 6.5 |
| | 10 | 11.1 |
| Q6001 | B | 1.9 |
| | C | 0.3 |
| | E | 0 |
| Q6002 | B | 0 |
| | C | 1.1 |
| | E | 0 |
| Q6101 | B | 5.0 |
| | C | 0 |
| | E | 0 |
| Q6102 | B | (2.5)[5.0] |
| | C | 0 |
| | E | 0 |
| Q6103 | B | 8.7 |
| | C | 2.5 |
| | E | 8.9 |
| Q6104 | G | 5.0 |
| | D | 23.5 |
| | S | 0 |
| Q6105 | B | 1.1 |
| | C | 0 |
| | E | 1.8 |
| Q6106 | B | 8.8 |
| | C | 10.7 |
| | E | 8.2 |
| Q6107 | B | 8.2 |
| | C | 1.1 |
| | E | 8.7 |
| Q6108 | B | 3.1 |
| | C | 8.9 |
| | E | 2.5 |
| Q6201 | B | 0.4 |
| | C | 4.9 |
| | E | 0 |
| Q6202 | B | 0.3 |
| | C | 6.5 |
| | E | 0 |
| Q6203 | B | -0.5 |
| | C | 2.4 |
| | E | 0 |
| Q6205 | B | 0 |
| | C | (3.7)[4.1] |
| | E | 0 |
| Q6206 | B | 9.0 |
| | C | 2.9 |
| | E | 8.9 |
| Q6207 | B | 0 |
| | C | 2.5 |
| | E | 0 |
| Q6208 | B | 8.9 |
| | C | 0 |
| | E | 8.8 |
| Q6209 | B | 0 |
| | C | 0 |
| | E | -1.5 |
| Q6210 | B | 0 |
| | C | 0 |
| | E | -1.4 |
| Q6211 | B | 0 |
| | C | 8.9 |
| | E | 2.4 |
| Q6212 | B | 1.0 |
| | C | 0 |
| | E | 1.4 |
| Q6213 | B | 1.7 |
| | C | 8.9 |
| | E | 1.8 |
| Q6214 | B | 1.0 |
| | C | 8.9 |
| | E | 1.0 |
| Q6215 | B | 3.2 |
| | C | 8.9 |
| | E | 3.3 |
| Q6216 | B | 3.2 |
| | C | 0 |
| | E | 3.3 |
| Q6218 | B | 1.5 |
| | C | 8.9 |
| | E | 0.9 |
| Q6401 | B | 4.4 |
| | C | 8.9 |
| | E | 3.8 |
| Q6402 | B | 3.8 |
| | C | 0 |
| | E | 4.4 |
| Q6409 | B | 4.0 |
| | C | 0 |
| | E | 4.1 |
| Q6410 | B | 4.0 |
| | C | 8.9 |
| | E | 4.1 |
| Q6412 | B | 3.9 |
| | C | 0 |
| | E | 3.9 |
| Q6413 | B | 3.9 |
| | C | 8.9 |
| | E | 3.9 |
| Q6414 | B | 3.9 |
| | C | 0 |
| | E | 4.5 |
| Q6415 | B | 0.7 |
| | C | 0 |
| | E | 0 |
| Q6417 | B | 3.2 |
| | C | 8.9 |
| | E | 2.6 |

D5 BOARD VOLTAGE LIST AND WAVEFORM

| Ref | Pin No. | Voltage[v] | Ref | Pin No. | Voltage[v] | Ref | Pin No. | Voltage[v] |
|---|---|---|---|---|---|---|---|---|
| Q6418 | B<br>C<br>E | 0.2<br>0<br>0.8 | Q6508 | B<br>C<br>E | 5.2<br>4.6<br>8.9 | | ⑦  8.8Vp-p | |
| Q6419 | B<br>C<br>E | 3.8<br>8.9<br>3.2 | Q6509 | B<br>C<br>E | 0.6<br>0<br>0 | | | |
| Q6420 | B<br>C<br>E | 7.1<br>0<br>7.7 | | ① 208mVp-p | | | ⑧ PAL  472mVp-p | |
| Q6421 | B<br>C<br>E | 7.6<br>8.9<br>7.1 | | | | | | |
| Q6422 | B<br>C<br>E | 2.4<br>0<br>3.1 | | ②  2.4Vp-p | | | ⑧ NTSC3.58  752mVp-p | |
| Q6423 | B<br>C<br>E | 2.6<br>0<br>3.2 | | | | | | |
| Q6424 | B<br>C<br>E | 1.2<br>6.6<br>(0)[0.6] | | ③  800mVp-p | | | ⑨  9.0Vp-p | |
| Q6425 | B<br>C<br>E | 1.6<br>8.9<br>1.1 | | | | | | |
| Q6427 | B<br>C<br>E | 0.8<br>8.9<br>3.7 | | | | | | |
| Q6437 | B<br>C<br>E | 2.6<br>8.9<br>2.0 | | ④ PAL 736mVp-p | | | ⑩  840mVp-p | |
| Q6438 | B<br>C<br>E | 2.0<br>-15<br>2.6 | | | | | | |
| Q6439 | B<br>C<br>E | 1.5<br>8.8<br>3.2 | | ④ NTSC3.58 1.4Vp-p | | | ⑪  16.8Vp-p | |
| Q6440 | B<br>C<br>E | -0<br>6.0<br>-0 | | | | | | |
| Q6441 | B<br>C<br>E | 1.8<br>-0<br>2.1 | | ⑤ PAL  8.8Vp-p | | | ⑫ 1.7Vp-p | |
| Q6501 | B<br>C<br>E | 4.4<br>8.9<br>3.7 | | | | | | |
| Q6502 | B<br>C<br>E | (1.9)[2.2]<br>0<br>(0)[2.9] | | ⑤ NTSC3.58  9.0Vp-p | | | ⑬ 1.8Vp-p | |
| Q6503 | B<br>C<br>E | (0.1)[2.7]<br>0<br>(1.9)[2.2] | | | | | | |
| Q6504 | B<br>C<br>E | 0.2<br>8.2<br>0 | | ⑥ PAL 1.4Vp-p | | | | |
| Q6505 | B<br>C<br>E | 0.3<br>8.9<br>0.1 | | | | | | |
| Q6506 | B<br>C<br>E | (2.8)[0]<br>(0)[3.3]<br>0 | | ⑥ NTSC3.58 1.5Vp-p | | | | |
| Q6507 | B<br>C<br>E | (0)[2.7]<br>0.3<br>0 | | | | | | |

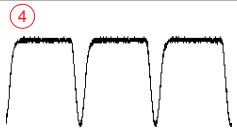
P BOARD VOLTAGE LIST AND WAVEFORM (EXCEPT KV-DR29M63)

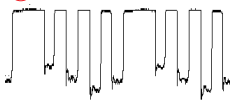
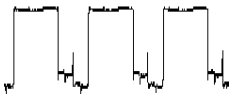
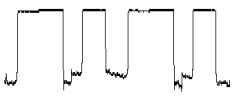
| Ref | Pin No. | Voltage[v] | Ref | Pin No. | Voltage[v] |
|---|---|---|---|---|---|
| IC8801 | 1 | 1.4 | Q8802 | B | 0.9 |
| | 2 | (1.7)[1.4] | | C | 0 |
| | 3 | 0.2 | | E | 1.6 |
| | 4 | 0.1 | Q8803 | B | 0.7 |
| | 5 | 4.4 | | C | 0 |
| | 6 | 4.4 | | E | 1.4 |
| | 7 | 3.3 | Q8804 | B | 4.7 |
| | 8 | 0 | | C | 0 |
| | 9 | 0 | | E | 4.9 |
| | 10 | 0.8 | Q8805 | B | 1.9 |
| | 11 | 0 | | C | 0 |
| | 12 | 0 | | E | 2.6 |
| | 13 | 0 | Q8806 | B | 0.3 |
| | 14 | 0 | | C | 3.3 |
| | 15 | 0 | | E | 0.3 |
| | 16 | 0.7 | Q8807 | B | 0.1 |
| | 17 | 0.3 | | C | 3.3 |
| | 18 | 0.7 | | E | 0.1 |
| | 19 | 3.3 | Q8808 | B | 2.5 |
| | 20 | 0 | | C | 0 |
| | 21 | 3.3 | | E | (1.6)[3.2] |
| | 22 | 3.3 | Q8809 | B | 2.6 |
| | 23 | 0 | | C | 0 |
| | 24 | 1.7 | | E | 3.3 |
| | 25 | 1.2 | Q8810 | B | 2.5 |
| | 26 | 1.7 | | C | 0 |
| | 27 | 2.1 | | E | 3.2 |
| | 28 | 2.0 | Q8811 | B | 0.3 |
| IC8802 | I | 4.9 | | C | 0 |
| | G | 0 | | E | 0.9 |
| | O | 3.3 | Q8812 | B | -0.5 |
| Q8801 | B | 0.7 | | C | 2.6 |
| | C | 0 | | E | 0 |
| | E | 1.4 | | | |

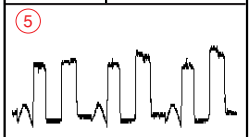
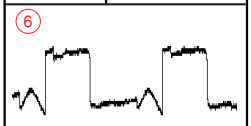
V2 BOARD VOLTAGE LIST AND WAVEFORM (EXCEPT KV-DR29M63)

| Ref | Pin No. | Voltage[v] | Ref | Pin No. | Voltage[v] |
|---|---|---|---|---|---|
| IC5801 | 1 | 0 | | 33 | 0 |
| | 2 | 0 | | 34 | 0 |
| | 3 | 0 | | 35 | 0 |
| | 4 | 0 | | 36 | 1.3 |
| | 5 | 0 | | 37 | 0 |
| | 6 | 0 | | 38 | 0 |
| | 7 | 0 | | 39 | 3.3 |
| | 8 | 0 | | 40 | 0 |
| | 9 | 0 | | 41 | 2.4 |
| | 10 | 0 | | 42 | 2.4 |
| | 11 | 0 | | 43 | 0 |
| | 12 | 0 | | 44 | 0 |
| | 13 | 0 | | 45 | 0 |
| | 14 | 0 | | 46 | 0 |
| | 15 | 0 | | 47 | 0 |
| | 16 | 0 | | 48 | 0 |
| | 17 | 0 | | 49 | 0 |
| | 18 | 0 | | 50 | 4.6 |
| | 19 | 0 | | 51 | 0 |
| | 20 | 0 | | 52 | 0 |
| | 21 | 0 | Q5801 | B | 0 |
| | 22 | 0 | | C | 5 |
| | 23 | 2.2 | | E | 0 |
| | 24 | 0 | Q5803 | B | 0.6 |
| | 25 | 2 | | C | 0 |
| | 26 | 2.4 | | E | 0 |
| | 27 | 0 | Q5805 | B | 0.5 |
| | 28 | 0 | | C | 1.3 |
| | 29 | 0 | | E | 0 |
| | 30 | 0 | Q5810 | B | 0.4 |
| | 31 | 2.5 | | C | 3.6 |
| | 32 | 0 | | E | 0 |

C BOARD VOLTAGE LIST AND WAVEFORM

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| IC9001 | 1 | 3.5 |
| | 2 | 12 |
| | 3 | 3.4 |
| | 4 | 0 |
| | 5 | 9.0 |
| | 6 | 200 |
| | 7 | 152 |
| | 8 | (158)[154] |
| | 9 | (152)[148] |
| IC9002 | 1 | 3.5 |
| | 2 | 12 |
| | 3 | 3.4 |
| | 4 | 0 |
| | 5 | 8.9 |
| | 6 | 200 |
| | 7 | 157 |
| | 8 | 170 |
| | 9 | 156 |
| IC9003 | 1 | 3.5 |
| | 2 | 12 |
| | 3 | 3.3 |
| | 4 | 0 |
| | 5 | 9.0 |
| | 6 | 200 |
| | 7 | 154 |
| | 8 | 160 |
| | 9 | 153 |
| J9001 | G2 | (565)[560] |
| | H1 | 0 |
| | ④  23.6Vp-p | |
| | H2 | 0 |

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| | KB | 160 |
| | ③ PAL 116Vp-p | |
| | ③ NTSC3.58  108Vp-p | |
| | KG | (168)[170] |
| | ② PAL 96Vp-p | |
| | ② NTSC3.58  86Vp-p | |
| | KR | (158)[154] |
| | ① PAL  108Vp-p | |
| | ① NTSC3.58 120Vp-p | |

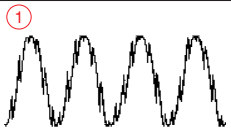
| Ref | Pin No. | Voltage[v] |
|---|---|---|
| Q9001 | B | 8.4 |
| | C | 0 |
| | E | 4.6 |
| Q9003 | B | 0 |
| | C | 12 |
| | E | 2.9 |
| Q9004 | B | 0 |
| | C | 12 |
| | E | 2.8 |
| Q9005 | B | 0 |
| | C | 12 |
| | E | 2.8 |
| Q9009 | B | 2.9 |
| | C | 0 |
| | E | 3.5 |
| Q9010 | B | 2.8 |
| | C | 0 |
| | E | 3.4 |
| Q9011 | B | 2.8 |
| | C | 0 |
| | E | 3.4 |
| | ⑤  3.2Vp-p | |
| | ⑥  2.5Vp-p | |
| | ⑦ 4.3Vp-p | |

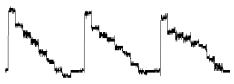
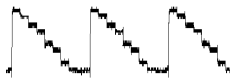
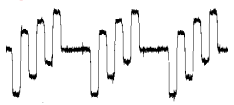
BC1 BOARD VOLTAGE LIST AND WAVEFORM

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| IC2001 | VCC | 5.0 |
| | OUT | 2.5 |
| | GND | 0 |
| IC2004 | 1 | 0 |
| | 2 | 0 |
| | 3 | 0 |
| | 4 | 0 |
| | 5 | 0 |
| | 6 | 0 |
| | 7 | 0 |
| | 8 | 0 |
| | 9 | 0 |
| | 10 | 0 |
| | 11 | 3.4 |
| | 12 | 3.4 |
| | 13 | 0 |
| | 14 | 0 |
| | 15 | 0 |
| | 16 | 0 |
| | 17 | 0 |
| | 18 | 0 |
| | 19 | 0 |
| | 20 | 1.1 |
| | 21 | 0 |
| | 22 | 0 |
| | 23 | 1.1 |
| | 24 | 1.0 |
| | 25 | 1.1 |
| | 26 | 1.1 |
| | 27 | 1.1 |
| | 28 | 1.1 |
| | 29 | 0 |
| | 30 | 0 |
| | 31 | 2.4 |
| | 32 | 2.4 |
| | 33 | 0 |
| | 34 | 0 |
| | 35 | 0 |
| | 36 | 0 |
| | 37 | 0 |
| | 38 | 3.3 |
| | 39 | 0 |
| | 40 | 0 |
| | 41 | 0 |
| | 42 | 0 |
| | 43 | 0 |
| | 44 | 0 |
| | 45 | 2.4 |
| | 46 | 2.5 |
| | 47 | 2.5 |
| | 48 | 1.2 |
| | 49 | 0 |
| | 50 | 1.3 |
| | 51 | 0 |
| | 52 | 1.3 |
| | 53 | 2.4 |
| | 54 | 01 |
| | 55 | 0 |
| | 56 | 0 |
| | 57 | 4.9 |
| | 58 | 0 |
| | 59 | 4.5 |
| | 60 | 4.5 |
| | 61 | 0 |
| | 62 | 0 |
| | 63 | 0 |
| | 64 | 2.4 |
| | 65 | 2.6 |
| | 66 | 0 |
| | 67 | 0 |
| | 68 | 2.6 |
| | 69 | 2.6 |
| | 70 | 2.6 |
| | 71 | 2.6 |
| | 72 | 2.6 |
| | 73 | 2.6 |
| | 74 | 2.6 |
| | 75 | 0 |
| | 76 | 4.1 |
| | 77 | 0 |
| | 78 | 0 |
| | 79 | 0 |
| | 80 | 0 |
| | 81 | 2.4 |
| | 82 | 0 |
| | 83 | 1.3 |
| | 84 | 1.1 |
| | 85 | 1.0 |
| | 86 | 0 |
| | 87 | 0 |
| | 88 | 0 |
| | 89 | 0.3 |
| | 90 | 0.7 |
| | 91 | 0 |
| | 92 | 2.4 |
| | 93 | 2.5 |
| | 94 | 0 |
| | 95 | 0 |
| | 96 | 1.1 |
| | 97 | 0 |
| | 98 | 0 |
| | 99 | 0 |
| | 100 | 2.5 |
| IC2005 | VCC | 5.0 |
| | OUT | 3.3 |
| | GND | 0 |
| IC2300 | 1 | 0 |
| | 2 | 3.1 |
| | 3 | 0.5 |
| | 4 | 0 |
| | 5 | 0 |
| | 6 | 1.8 |
| | 7 | 2.1 |
| | 8 | 0 |
| | 9 | 0 |
| | 10 | 0 |
| | 11 | 4.9 |
| | 12 | 0 |
| | 13 | 5.0 |
| | 14 | 0 |
| | 15 | 4.4 |
| | 16 | 4.4 |
| | 17 | 0 |
| | 18 | 0 |
| | 19 | 2.5 |
| | 20 | 5.0 |
| | 21 | 0 |
| | 22 | 3.6 |
| | 23 | 3.6 |
| | 24 | 3.4 |
| | 25 | 2.6 |
| | 26 | 0 |
| | 27 | 3 |
| | 28 | 1.1 |
| Q2002 | B | 1.3 |
| | C | 0 |
| | E | 2.0 |
| Q2003 | B | 1.3 |
| | C | 0 |
| | E | 2.0 |
| Q2004 | B | 1.2 |
| | C | 0 |
| | E | 1.9 |
| Q2005 | B | 2.5 |
| | C | 8.9 |
| | E | 1.9 |
| Q2006 | B | 2.5 |
| | C | 8.9 |
| | E | 1.9 |
| Q2007 | B | 2.8 |
| | C | 5.7 |
| | E | 2.2 |
| Q2008 | B | 5.7 |
| | C | (8.9)[5.9] |
| | E | (5.0)[2.1] |
| Q2009 | B | 5.7 |
| | C | 8.9 |
| | E | 5.0 |
| Q2010 | B | 5.9 |
| | C | 8.9 |
| | E | 5.3 |
| Q2011 | B | 0.1 |
| | C | 4.1 |
| | E | 0 |
| Q2012 | B | 1.0 |
| | C | 0 |
| | E | 1.7 |
| Q2013 | B | 4.8 |
| | C | 0.5 |
| | E | 0.5 |
| Q2014 | B | 6.2 |
| | C | 8.9 |
| | E | 5.6 |
| Q2015 | B | 3.5 |
| | C | 4.8 |
| | E | (3.2)[3.6] |
| Q2016 | B | 1.7 |
| | C | 8.9 |
| | E | 1.1 |
| Q2018 | B | 2.5 |
| | C | 0 |
| | E | 3.2 |
| Q2019 | B | (3.3)[3.6] |
| | C | 8.9 |
| | E | 2.7 |
| Q2300 | B | 0 |
| | C | 8.9 |
| | E | 0 |
| Q2301 | B | 2.5 |
| | C | 0 |
| | E | 3.1 |
| Q2302 | B | 3.0 |
| | C | 9.0 |
| | E | 2.4 |
| Q2303 | B | (2.6)[3.2] |
| | C | 8.3 |
| | E | (3.2)[2.6] |
| Q2304 | B | 8.3 |
| | C | 5.5 |
| | E | 9.0 |
| Q2305 | B | (2.6)[2.9] |
| | C | 9.0 |
| | E | 0 |
| Q2306 | B | 3.2 |
| | C | 8.3 |
| | E | (0)[2.5] |
| Q2307 | B | 4.9 |
| | C | 9.0 |
| | E | 4.3 |
| Q2308 | B | 8.3 |
| | C | 4.9 |
| | E | 9.0 |
| Q2309 | B | 5.7 |
| | C | 8.9 |
| | E | 5.1 |

B3 BOARD VOLTAGE LIST AND WAVEFORM

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| IC504 | 1 | 4.2 |
| | 2 | 0 |
| | 3 | (0.8)[1.4] |
| | 4 | 3.3 |
| | 5 | 1.6 |
| | 6 | 2.1 |
| | 7 | 0 |
| | 8 | 0 |
| | 9 | 0 |
| | 10 | 0 |
| | 11 | 0 |
| | 12 | 2.2 |
| | 13 | 2.2 |
| | 14 | 4.2 |
| IC505 | 1 | 4.9 |
| | 2 | 3.2 |
| | 3 | 0 |
| | 4 | 0 |
| | 5 | 4.9 |
| IC506 | 1 | 4.9 |
| | 2 | 3.0 |
| | 3 | 0 |
| | 4 | 0.4 |
| | 5 | 4.9 |
| IC507 | 1 | 0 |
| | 2 | 3.6 |
| | 3 | 4.8 |
| | 4 | 1.0 |
| | 5 | 4.8 |
| | 6 | 1.4 |
| | 7 | 3.3 |
| | 8 | 0 |
| | 9 | 4.1 |
| | 10 | 0.7 |
| | 11 | 4.8 |
| | 12 | 3.3 |
| | 13 | 4.8 |
| | 14 | 4.2 |
| | 15 | 0 |
| | 16 | 4.8 |
| IC601 | 1 | 2.4 |
| | 2 | 0 |
| | 3 | 0 |
| | 4 | 0 |
| | 5 | 0 |
| | 6 | 0 |
| | 7 | 3.1 |
| | 8 | 3.1 |
| | 9 | 3.1 |
| | 10 | 0.5 |
| | 11 | 3.1 |
| | 12 | 0 |
| | 13 | 0.9 |
| | 14 | 1.3 |
| | 15 | 1.4 |
| | 16 | 1.3 |
| | 17 | 1.4 |
| | 18 | 1.4 |
| | 19 | 1.4 |
| | 20 | 1.5 |
| | 21 | 2.4 |
| | 22 | 0 |
| | 23 | 3.2 |
| | 24 | 0 |
| | 25 | 0.8 |
| | 26 | 1.3 |
| | 27 | 1.5 |
| | 28 | 1.5 |
| | 29 | 1.4 |
| | 30 | 1.5 |
| | 31 | 1.4 |
| | 32 | 1.6 |
| | 33 | 3.2 |

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| | 34 | 0 |
| | 35 | 0 |
| | 36 | 0 |
| | 37 | 0 |
| | 38 | 0 |
| | 39 | 0 |
| | 40 | 0 |
| | 41 | 0 |
| | 42 | 0 |
| | 43 | 2.4 |
| | 44 | 0 |
| | 45 | 1.6 |
| | 46 | 0 |
| | 47 | 0 |
| | 48 | 0 |
| | 49 | 0 |
| | 50 | 3.2 |
| | 51 | 0 |
| | 52 | 2.4 |
| | 53 | 0 |
| | 54 | 3.2 |
| | 55 | 0 |
| | 56 | 0 |
| | 57 | 3.2 |
| | 58 | 3.2 |
| | 59 | 3.1 |
| | 60 | 0 |
| | 61 | 0 |
| | 62 | 3.2 |
| | 63 | 3.2 |
| | 64 | 3.2 |
| | 65 | 0 |
| | 66 | 0 |
| | 67 | 3.2 |
| | 68 | 0 |
| | 69 | 0.4 |
| | 70 | 3.2 |
| | 71 | 0 |
| | 72 | 3.2 |
| | 73 | 0 |
| | 74 | 2.4 |
| | 75 | 0 |
| | 76 | 0 |
| | 77 | 0 |
| | 78 | 3.2 |
| | 79 | 3.2 |
| | 80 | 3.0 |
| | 81 | 0.4 |
| | 82 | 3.2 |
| | 83 | 0 |
| | 84 | 0 |
| | 85 | 3.2 |
| | 86 | 0.3 |
| | 87 | 3.2 |
| | 88 | 0 |
| | 89 | 0 |
| | 90 | 0 |
| | 91 | 1.5 |
| | 92 | 1.5 |
| | 93 | 0 |
| | 94 | 2.4 |
| | 95 | 1.5 |
| | 96 | 3.2 |
| | 97 | 1.4 |
| ①  10Vp-p | | |
| | 98 | 3.0 |
| | 99 | 3.2 |

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| | 100 | 0 |
| | 101 | 0 |
| | 102 | 0 |
| | 103 | 2.4 |
| | 104 | 0 |
| | 105 | 0.3 |
| ② PAL  820mVp-p | | |
| ② NTSC3.58  640mVp-p | | |
| | 106 | 0.9 |
| | 107 | 0.9 |
| | 108 | 1.1 |
| | 109 | 0.5 |
| ③ PAL 656mVp-p | | |
| ③ NTSC3.58 680mVp-p | | |
| | 110 | 2.1 |
| | 111 | 3.2 |
| | 112 | 0 |
| | 113 | 0.5 |
| ④  670mVp-p | | |
| | 114 | 3.2 |
| | 115 | 0 |
| | 116 | 2.4 |
| | 117 | 1.6 |
| | 118 | 0 |
| | 119 | 1.6 |
| | 120 | 1.3 |
| | 121 | 1.3 |
| | 122 | 1.3 |
| | 123 | 1.3 |
| | 124 | 1.2 |
| | 125 | 1.3 |
| | 126 | 1.7 |
| | 127 | 1.3 |
| | 128 | 1.2 |
| | 129 | 0.3 |
| | 130 | 0 |
| | 131 | 1.3 |
| | 132 | 1.1 |
| | 133 | 1.4 |
| | 134 | 1.5 |
| | 135 | 1.8 |
| | 136 | 1.5 |
| | 137 | 1.5 |
| | 138 | 1.6 |
| | 139 | 1.2 |

B3 BOARD VOLTAGE LIST AND WAVEFORM

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| | 140 | 1.7 |
| | 141 | 2.4 |
| | 142 | 0 |
| | 143 | 3.2 |
| | 144 | 0 |
| | 145 | 1.3 |
| | 146 | 1.1 |
| | 147 | 1.3 |
| | 148 | 1.3 |
| | 149 | 1.3 |
| | 150 | 1.2 |
| | 151 | 1.1 |
| | 152 | 1.3 |
| | 153 | 1.2 |
| | 154 | 1.9 |
| | 155 | 0 |
| | 156 | 0 |
| | 157 | 3.2 |
| | 158 | (1.5)[1.9] |
| | 159 | (0.6)[2.2] |
| | 160 | 1.3 |
| | 161 | 1.4 |
| | 162 | 0 |
| | 163 | 0 |
| | 164 | 1.3 |
| | 165 | 1.2 |
| | 166 | 1.4 |
| | 167 | 1.3 |
| | 168 | 1.2 |
| | 169 | 1.3 |
| | 170 | 1.1 |
| | 171 | 1.9 |
| | 172 | 2.4 |
| | 173 | 0 |
| | 174 | 1.6 |
| | 175 | 1.4 |
| | 176 | (1.4)[0.8] |
| | 177 | 1.5 |
| | 178 | 1.7 |
| | 179 | (1.5)[1.1] |
| | 180 | 1.3 |
| | 181 | 0.3 |
| | 182 | 2.4 |
| | 183 | 0 |
| | 184 | 3.2 |
| | 185 | 3.2 |
| | 186 | 0.7 |
| | 187 | 3.2 |
| | 188 | 0 |
| | 189 | 0 |
| | 190 | 0 |
| | 191 | 0 |
| | 192 | 0 |
| | 193 | 0 |
| | 194 | 0 |
| | 195 | 0 |
| | 196 | 0 |
| | 197 | 2.4 |
| | 198 | 0 |
| | 199 | 0 |
| | 200 | 0 |
| | 201 | 0 |
| | 202 | 0 |
| | 203 | 0 |
| | 204 | 0 |
| | 205 | 0 |
| | 206 | 0 |
| | 207 | 3.2 |
| | 208 | 0 |
| IC602 | 1 | 3.3 |
| | 2 | 1.5 |
| | 3 | 1.5 |
| | 4 | 0 |
| | 5 | 1.1 |
| | 6 | 1.5 |
| | 7 | 3.3 |
| | 8 | 1.6 |
| | 9 | 1.5 |
| | 10 | 0 |
| | 11 | 1.1 |
| | 12 | (0.6)[1.0] |
| | 13 | 3.3 |
| | 14 | 0.5 |
| | 15 | 3.2 |
| | 16 | 3.2 |
| | 17 | 3.2 |
| | 18 | 3.2 |
| | 19 | 0 |
| | 20 | 0 |
| | 21 | 0 |
| | 22 | 0 |
| | 23 | 0 |
| | 24 | 0 |
| | 25 | 3.3 |
| | 26 | 0 |
| | 27 | 0 |
| | 28 | 0 |
| | 29 | 0 |
| | 30 | 0 |
| | 31 | 0 |
| | 32 | 0 |
| | 33 | 0 |
| | 34 | 3.3 |
| | 35 | 0 |
| | 36 | 0 |
| | 37 | 0 |
| | 38 | 3.3 |
| | 39 | 1.5 |
| | 40 | 1.5 |
| | 41 | 0 |
| | 42 | 1.7 |
| | 43 | 1.6 |
| | 44 | 3.2 |
| | 45 | 1.8 |
| | 46 | 1.6 |
| | 47 | 0 |
| | 48 | 1.5 |
| | 49 | 1.1 |
| | 50 | 0 |
| IC603 | 1 | 3.3 |
| | 2 | 0 |
| | 3 | 1.4 |
| | 4 | 0.2 |
| | 5 | 1.3 |
| | 6 | 1.4 |
| | 7 | 0 |
| | 8 | 0 |
| | 9 | 0 |
| | 10 | 0 |
| | 11 | 0 |
| | 12 | 1.4 |
| | 13 | 2.1 |
| | 14 | 3.3 |
| IC604 | 1 | 4.9 |
| | 2 | (0)[3.1] |
| | 3 | 0.4 |
| | 4 | 0.4 |
| | 5 | 3.0 |
| | 6 | 0.4 |
| | 7 | 0.4 |
| | 8 | 0 |
| | 9 | (3.2)[0] |
| | 10 | (3.2)[0] |
| | 11 | 0 |
| | 12 | 4.9 |
| | 13 | 0 |
| | 14 | 4.5 |
| | 15 | 4.4 |
| | 16 | 4.9 |
| IC605 | 1 | 2.3 |
| | 2 | 1.8 |
| | 3 | 1.8 |
| | 4 | * |
| | 5 | 0 |
| IC801 | 1 | 4.8 |
| | 2 | * |
| | 3 | * |
| | 4 | * |
| | 5 | * |
| | 6 | 4.8 |
| | 7 | * |
| | 8 | * |
| | 9 | * |
| | 10 | * |
| | 11 | * |
| | 12 | * |
| | 13 | * |
| | 14 | * |
| | 15 | * |
| | 16 | * |
| | 17 | * |
| | 18 | * |
| | 19 | * |
| | 20 | 4.8 |
| | 21 | * |
| | 22 | * |
| | 23 | * |
| | 24 | * |
| | 25 | * |
| | 26 | * |
| | 27 | * |
| | 28 | * |
| | 29 | * |
| | 30 | * |
| | 31 | * |
| | 32 | * |
| | 33 | * |
| | 34 | * |
| | 35 | * |
| | 36 | * |
| | 37 | * |
| | 38 | * |
| | 39 | * |
| | 40 | * |
| IC802 | 1 | * |
| | 2 | * |
| | 3 | * |
| | 4 | * |
| | 5 | * |
| | 6 | * |
| | 7 | * |
| | 8 | 1.2 |
| | 9 | 1.0 |
| | 10 | 3.4 |
| | 11 | * |
| | 12 | * |
| | 13 | * |
| | 14 | * |
| | 15 | * |
| | 16 | 0 |
| | 17 | 0 |
| | 18 | 0 |
| | 19 | 0 |
| | 20 | 0 |
| | 21 | 0 |
| | 22 | 2.4 |
| | 23 | 3.4 |
| | 24 | 2.7 |
| | 25 | 2.1 |

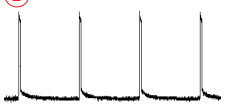
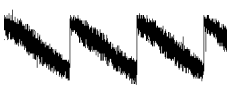
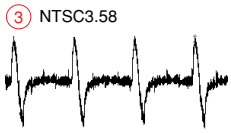
B3 BOARD VOLTAGE LIST AND WAVEFORM

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| | 26 | 3.4 |
| | 27 | 2.7 |
| | 28 | 1.4 |
| | 29 | 0 |
| | 30 | 2.1 |
| | 31 | 0 |
| | 32 | 2.4 |
| | 33 | 1.0 |
| | 34 | 1.3 |
| | 35 | 1.7 |
| | 36 | 0.9 |
| | 37 | 3.4 |
| | 38 | 2.4 |
| | 39 | 1.0 |
| | 40 | 1.7 |
| | 41 | 1.7 |
| | 42 | (1.4)[1.7] |
| | 43 | 0 |
| | 44 | 3.4 |
| | 45 | * |
| | 46 | 0 |
| | 47 | 0 |
| | 48 | 3.4 |
| | 49 | 0.3 |
| | 50 | 0 |
| | 51 | * |
| | 52 | 3.0 |
| | 53 | 3.4 |
| | 54 | 1.6 |
| | 55 | * |
| | 56 | 1.6 |
| | 57 | * |
| | 58 | 0 |
| | 59 | * |
| | 60 | * |
| | 61 | * |
| | 62 | * |
| | 63 | * |
| | 64 | * |
| | 65 | * |
| | 66 | * |
| | 67 | * |
| | 68 | * |
| | 69 | * |
| | 70 | * |
| | 71 | * |
| | 72 | * |
| | 73 | * |
| | 74 | * |
| | 75 | * |
| | 76 | 1.7 |
| | 77 | 1.7 |
| | 78 | 0.2 |
| | 79 | 0 |
| | 80 | 0 |
| | 81 | * |
| | 82 | * |

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| | 83 | * |
| | 84 | * |
| | 85 | * |
| | 86 | * |
| | 87 | * |
| | 88 | * |
| | 89 | * |
| | 90 | 0 |
| | 91 | * |
| | 92 | * |
| | 93 | * |
| | 94 | * |
| | 95 | * |
| | 96 | * |
| | 97 | * |
| | 98 | * |
| | 99 | * |
| | 100 | * |
| IC803 | 1 | 4.8 |
| | 2 | 2.7 |
| | 3 | 3.5 |
| | 4 | 1.2 |
| | 5 | 0 |
| IC804 | 1 | * |
| | 2 | 0 |
| | 3 | 0 |
| | 4 | 2.7 |
| | 5 | 4.8 |
| Q501 | B | 2.3 |
| | C | 0 |
| | E | 3.0 |
| Q502 | B | 2.7 |
| | C | 4.9 |
| | ⑤ PAL 106mVp-p | |
| | ⑤ NTSC3.58 86mVp-p | |
| | E | 2.0 |
| Q503 | B | 2.7 |
| | C | 4.9 |
| | E | 2.0 |
| | ⑥ 1.2Vp-p | |

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| Q504 | B | 0 |
| | C | 3 |
| | E | 0 |
| Q505 | B | 0.3 |
| | C | 0 |
| | E | 1.0 |
| Q516 | B | 4.0 |
| | C | 4.9 |
| | E | 3.3 |
| Q517 | B | 4.9 |
| | C | 4.9 |
| | E | 4.2 |
| Q518 | B | 3.2 |
| | C | 0 |
| | E | 2.2 |
| Q521 | B | 3.2 |
| | C | 4.9 |
| | E | 2.6 |
| Q522 | B | 3.6 |
| | C | 4.9 |
| | E | 3.0 |
| Q523 | B | 3.7 |
| | C | 4.9 |
| | E | 3.0 |
| Q601 | B | 0.1 |
| | C | 4.9 |
| | E | 0 |
| Q602 | B | 0.3 |
| | C | 4.9 |
| | E | 0.2 |
| Q603 | G | 3.2 |
| | D | * |
| | S | * |
| Q604 | G | 3.2 |
| | D | * |
| | S | * |
| Q901 | B | 0.9 |
| | C | 0 |
| | E | 1.6 |
| Q902 | B | 1.1 |
| | C | 0 |
| | E | 1.8 |
| Q903 | B | 1.1 |
| | C | 0 |
| | E | 1.8 |
| Q907 | B | 0.5 |
| | C | 0 |
| | E | 1.2 |
| Q908 | B | 0.3 |
| | C | 0 |
| | E | 1.0 |
| Q909 | B | 0.5 |
| | C | 0 |
| | E | 1.2 |

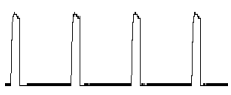
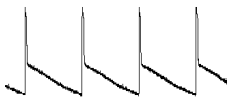
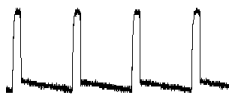
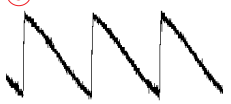
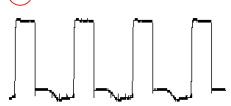
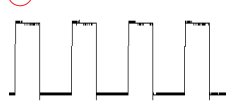
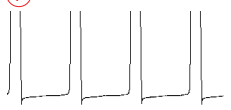
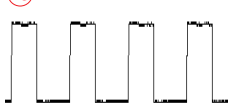
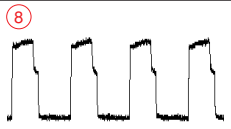
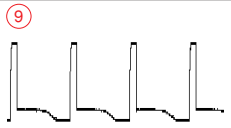
D BOARD VOLTAGE LIST AND WAVEFORM

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| IC6600 | 1 | 2.9 |
| | 2 | 1.8 |
| | 3 | 2.3 |
| | 4 | 2.5 |
| | 5 | 0 |
| | 6 | 0 |
| | 7 | 4.7 |
| | 8 | 17.8 |
| | 9 | 0 |
| | 10 | 10.6 |
| | 11 | 0 |
| | 12 | 4.9 |
| | 13 | 0 |
| | 14 | 138 |
| | 15 | 1.7 |
| | 16 | 129 |
| | 17 | 323 |
| | 18 | 321 |
| IC6601 | 1 | 9.8 |
| | 2 | 0 |
| | 3 | 2.4 |
| IC6607 | 1 | 134.1 |
| | 2 | 2.5 |
| | 3 | 0 |
| | 4 | 0 |
| IC6608 | 1 | 0 |
| | 2 | 0 |
| | 3 | 18.2 |
| | 4 | 7.2 |
| | 5 | 4.1 |
| | 6 | 7.4 |
| | 7 | 4.0 |
| | 8 | 3.0 |
| | 9 | 5.0 |
| | 10 | 18.0 |
| | 11 | 9.8 |
| | 12 | 0 |
| | 13 | 0.2 |
| | 14 | 18.2 |
| IC6800 | 1 | 1.2 |
| | ① 860mVp-p | |
| | 2 | 14 |
| | 3 | -19.0 |
| | ②  31Vp-p | |
| | 4 | 2 |
| | 5 | -8.2 |
| | 6 | 12.9 |
| | 7 | 1.2 |
| | ③ PAL  820mVp-p | |
| | ③ NTSC3.58  624mVp-p | |

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| IC6804 | I | 10.3 |
| | G | 0 |
| | O | 9.0 |
| IC6805 | I | 13.3 |
| | G | 0 |
| | O | 12 |
| IC6806 | I | 0 |
| | G | 0 |
| | O | 0 |
| | VC | 0 |
| IC6807 | 1 | 134 |
| | 2 | 2.4 |
| | 3 | 7.7 |
| | 4 | 0 |
| PH6601 | 1 | 81 |
| | 2 | 80 |
| | 3 | 0.1 |
| | 4 | 0 |
| PH6602 | 1 | 84 |
| | 2 | 83 |
| | 3 | -17.5 |
| | 4 | -16.0 |
| Q6100 | G | 0.9 |
| | D | * |
| | S | 0 |
| Q6102 | B | * |
| | C | * |
| | E | * |
| Q6600 | G | 129 |
| | D | 323 |
| | S | 126 |
| Q6601 | B | 0 |
| | C | 12 |
| | E | 0 |
| Q6602 | B | 0.3 |
| | C | 18.0 |
| | E | 0 |
| Q6603 | G | 4.9 |
| | D | 150 |
| | S | 0 |
| Q6604 | B | 17.3 |
| | C | 18.0 |
| | E | 18.2 |
| Q6605 | B | 0.9 |
| | C | 0.2 |
| | E | 0.1 |
| Q6608 | B | 0.6 |
| | C | 0 |
| | E | 0 |
| Q6609 | B | 4.9 |
| | C | 0 |
| | E | 4.9 |
| Q6610 | B | 0.5 |
| | C | 4.9 |
| | E | 0.2 |
| Q6611 | B | 0.2 |
| | C | 3.5 |
| | E | 0 |
| Q6613 | B | 0 |
| | C | 0.6 |
| | E | 0 |
| Q6614 | B | 17.4 |
| | C | 18.0 |
| | E | 18.2 |
| Q6619 | B | 0.6 |
| | C | 0 |
| | E | 0 |
| Q6620 | B | 0 |
| | C | 3.5 |
| | E | 0 |

| Ref | Pin No. | Voltage[v] |
|---|---|---|
| Q6800 | B | 6.2 |
| | C | 0 |
| | E | 0 |
| Q6801 | G | 0 |
| | D | 0.2 |
| | S | 0.3 |
| Q6802 | G | 135 |
| | D | 220 |
| | S | 135 |
| Q6803 | B | 1.4 |
| | C | 0 |
| | E | 1.7 |
| Q6804 | B | 1.4 |
| | C | 9.0 |
| | E | 1.6 |
| Q6805 | B | 0.5 |
| | C | (73)[71] |
| | E | 0 |
| Q6806 | B | -0.5 |
| | C | (63)[60] |
| | E | 0 |
| Q6807 | B | 0 |
| | C | (167)[139] |
| | E | 0 |
| Q6808 | B | 166 |
| | C | 145 |
| | E | 0 |
| Q6809 | G | 3.2 |
| | D | 19 |
| | S | 0 |
| Q6810 | G | 0 |
| | D | 135 |
| | S | 0 |
| Q6811 | B | 0.3 |
| | C | 5.1 |
| | E | 0.6 |
| Q6812 | B | -0.5 |
| | C | * |
| | E | 0 |
| Q6819 | B | 0 |
| | C | 0.8 |
| | E | 0 |
| Q6820 | B | -0.1 |
| | C | 0 |
| | E | 0 |
| Q6821 | B | -0.4 |
| | C | 9.0 |
| | E | 0 |

D BOARD VOLTAGE LIST AND WAVEFORM

| Ref | Pin No. | Voltage[v] | Ref | Pin No. | Voltage[v] |
|---|---|---|---|---|---|
| | ④ PAL 2.7Vp-p | | | ⑩ PAL  7.6Vp-p | |
| | ④ NTSC3.58  53.6Vp-p | | | ⑩ NTSC3.58  2.2Vp-p | |
| | ⑤  1.8Vp-p | | | ⑪  9.2Vp-p | |
| | ⑥ 260Vp-p | | | ⑫  8.9Vp-p | |
| | ⑦  370Vp-p | | | ⑬ PAL  7.8Vp-p | |
| | ⑧  2.3Vp-p | | | ⑬ NTSC3.58 2.6Vp-p | |
| | ⑨  8.8Vp-p | | | | |

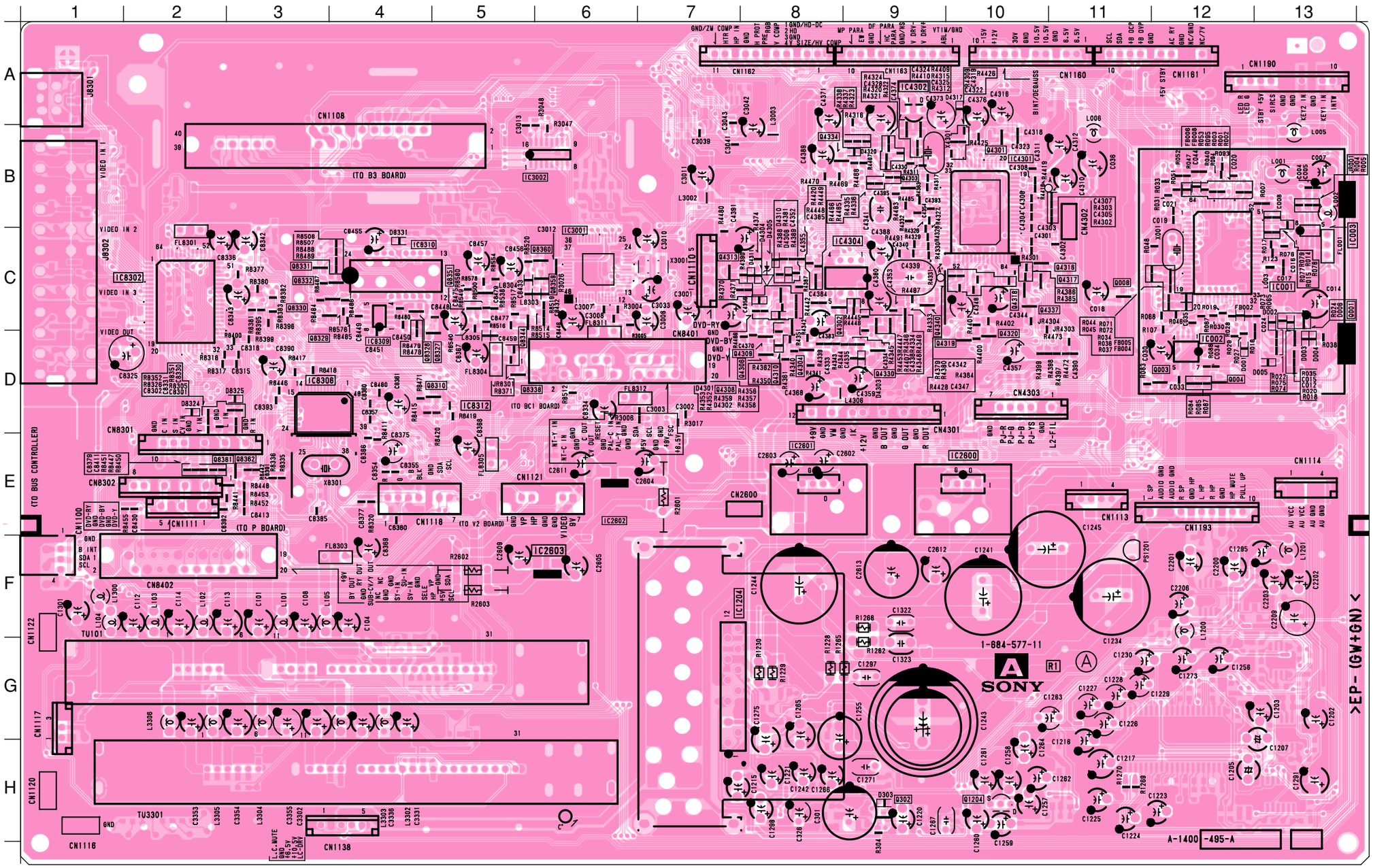
KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991

## 7-4. PRINTED WIRING BOARDS AND PARTS LOCATION

### PRINTED WIRING BOARDS

**A** [MICON, AUDIO AMP., TUVIF 1 & 2, REGULATORS, RGB JUNGLE, YCT, AV SW, VIDEO/AUDIO SIGNAL]

**– A board (Component Side) –**




- : Pattern from the side which enables seeing.
- : Pattern from the rear side.

A BOARD (Component Side)

| IC | | TRANSISTOR | |
|---|---|---|---|
| IC100 | F-10 | Q002 | C-1 |
| IC1200 | G-1 | Q101 | F-10 |
| IC1203 | H-5 | Q301 | H-5 |
| IC1204 | F-7 | Q313 | H-5 |
| IC1205 | H-1 | Q1200 | H-5 |
| IC1207 | H-3 | Q1201 | H-6 |
| IC2200 | F-3 | Q1202 | H-7 |
| IC2600 | E-4 | Q1203 | H-6 |
| IC2601 | E-6 | Q1204 | H-4 |
| IC3003 | B-7 | Q1205 | H-4 |
| IC4302 | A-5 | Q1207 | H-6 |
| IC8310 | C-11 | Q1208 | G-6 |
| | | Q1210 | G-6 |
| | | Q2200 | F-1 |
| | | Q2201 | F-1 |
| | | Q3001 | C-7 |
| | | Q3002 | D-7 |
| | | Q3003 | D-8 |
| | | Q3014 | C-8 |
| | | Q3015 | B-8 |
| | | Q3018 | B-8 |
| | | Q3023 | B-8 |
| | | Q4305 | C-5 |
| | | Q4325 | E-4 |
| | | Q4326 | D-4 |
| | | Q4327 | D-3 |
| | | Q4328 | E-4 |
| | | Q4329 | D-4 |
| | | Q4331 | E-4 |
| | | Q4332 | E-3 |
| | | Q4333 | B-5 |
| | | Q4335 | C-3 |
| | | Q4336 | C-4 |
| | | Q4338 | B-6 |
| | | Q4339 | B-7 |
| | | Q4341 | C-5 |
| | | Q8300 | G-9 |
| | | Q8302 | C-11 |
| | | Q8303 | C-11 |
| | | Q8304 | C-11 |
| | | Q8305 | D-9 |
| | | Q8306 | C-11 |
| | | Q8307 | D-8 |
| | | Q8319 | E-11 |
| | | Q8320 | D-11 |
| | | Q8321 | D-11 |
| | | Q8328 | D-10 |
| | | Q8333 | B-9 |
| | | Q8334 | B-10 |
| | | Q8335 | C-9 |
| | | Q8336 | B-10 |
| | | Q8337 | C-8 |
| | | Q8339 | D-8 |
| | | Q8352 | D-9 |
| | | Q8356 | C-9 |
| | | Q8357 | C-9 |
| | | Q8358 | C-9 |
| | | Q8364 | C-10 |
| | | Q8383 | E-11 |
| | | Q8385 | E-10 |

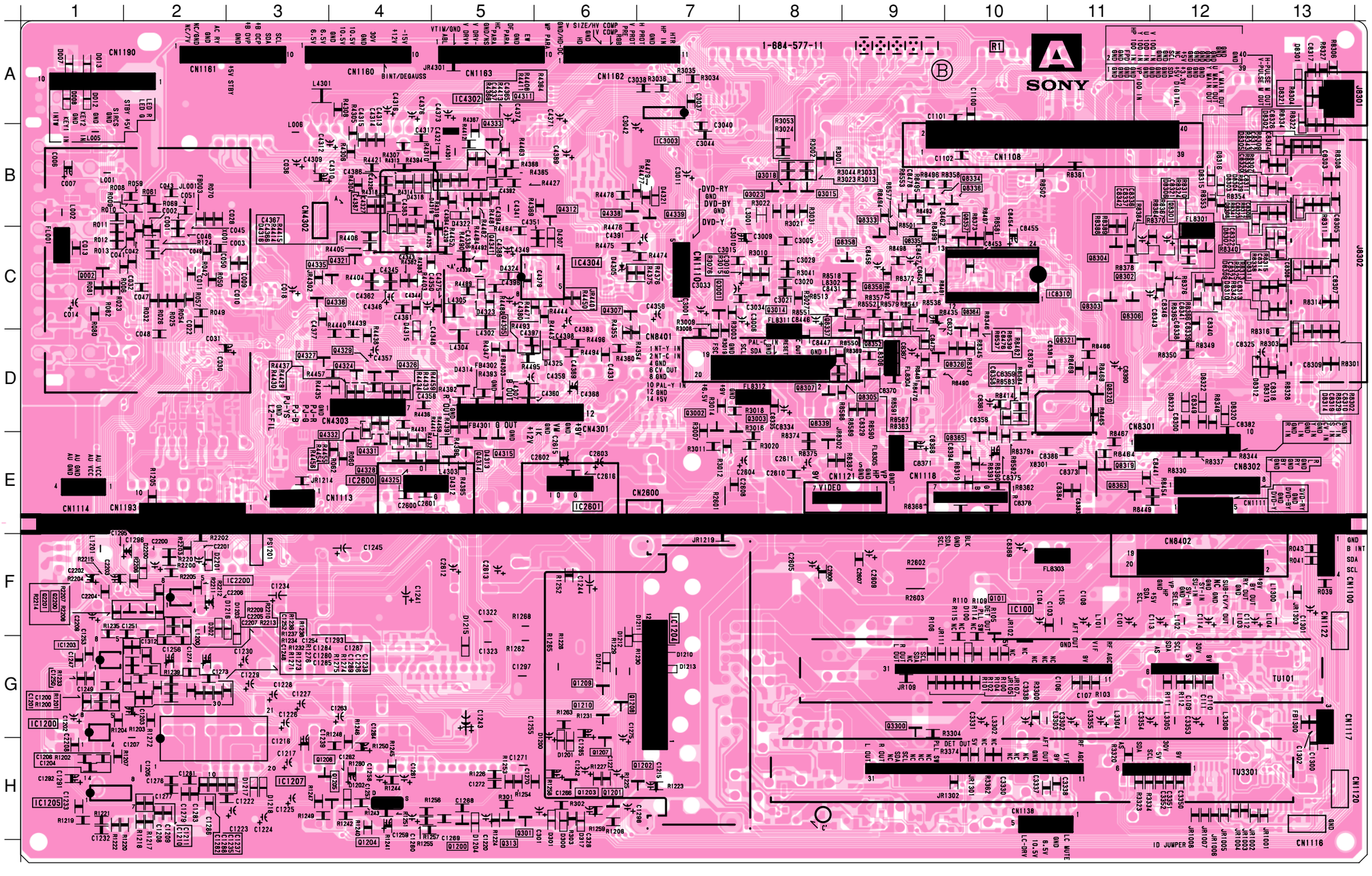
| DIODE | |
|---|---|
| D007 | A-1 |
| D008 | A-1 |
| D012 | A-1 |
| D013 | A-1 |
| D300 | H-7 |
| D301 | H-7 |
| D302 | F-2 |
| D317 | H-7 |
| D1200 | H-6 |
| D1201 | H-6 |
| D1203 | F-3 |
| D1210 | G-7 |
| D1211 | F-7 |
| D1212 | G-6 |
| D1213 | G-7 |
| D1214 | G-6 |
| D1215 | F-5 |
| D1216 | F-2 |
| D1217 | H-3 |
| D1218 | H-3 |
| D1219 | F-2 |
| D2201 | F-2 |
| D4305 | C-6 |
| D4307 | C-6 |
| D4312 | E-5 |
| D4313 | E-5 |
| D4314 | D-5 |
| D4315 | D-4 |
| D4316 | C-3 |
| D4318 | B-4 |
| D4321 | B-7 |
| D4322 | B-5 |
| D4323 | C-5 |
| D4324 | C-5 |
| D4325 | D-6 |
| D8301 | A-13 |
| D8302 | A-13 |
| D8303 | B-12 |
| D8304 | B-12 |
| D8305 | B-12 |
| D8306 | B-12 |
| D8307 | C-12 |
| D8308 | B-12 |
| D8309 | C-12 |
| D8310 | C-12 |
| D8311 | C-12 |
| D8312 | D-13 |
| D8313 | D-13 |
| D8314 | D-13 |
| D8315 | B-12 |
| D8320 | D-12 |
| D8321 | A-13 |
| D8322 | D-12 |
| D8323 | D-12 |

KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991

## PRINTED WIRING BOARDS

**A** [MICON, AUDIO AMP., TUVIF 1 & 2, REGULATORS, RGB JUNGLE, YCT, AV SW, VIDEO/AUDIO SIGNAL]

**– A board (Conductor Side) –**




A BOARD (Conductor Side)

| IC | | Q4330 | D-9 |
|---|---|---|---|
| | | Q4334 | B-8 |
| IC001 | C-13 | Q4337 | C-10 |
| IC002 | D-12 | Q4340 | C-9 |
| IC003 | C-13 | Q8310 | D-4 |
| IC1204 | F-7 | Q8327 | D-5 |
| IC2600 | E-10 | Q8328 | D-4 |
| IC2601 | E-8 | Q8329 | D-3 |
| IC2603 | F-6 | Q8330 | C-3 |
| IC2802 | E-6 | Q8331 | C-3 |
| IC3001 | C-6 | Q8332 | C-3 |
| IC3002 | B-5 | Q8338 | D-5 |
| IC4301 | B-10 | Q8344 | D-5 |
| IC4302 | A-9 | Q8351 | C-5 |
| IC4304 | C-8 | Q8359 | C-6 |
| IC8302 | C-1 | Q8360 | C-6 |
| IC8306 | D-3 | Q8361 | E-2 |
| IC8309 | D-4 | Q8362 | E-3 |
| IC8310 | C-4 | | |
| IC8312 | D-5 | **DIODE** | |
| **TRANSISTOR** | | D001 | D-12 |
| | | D002 | C-13 |
| Q001 | C-13 | D003 | D-13 |
| Q003 | D-12 | D004 | D-13 |
| Q004 | D-12 | D005 | D-13 |
| Q008 | C-11 | D006 | C-13 |
| Q302 | H-9 | D303 | H-9 |
| Q1204 | H-10 | D4301 | D-7 |
| Q4301 | B-10 | D4302 | D-7 |
| Q4302 | C-8 | D4303 | D-9 |
| Q4303 | B-9 | D4304 | C-8 |
| Q4304 | D-8 | D4305 | C-8 |
| Q4308 | D-7 | D4308 | C-8 |
| Q4309 | D-7 | D4310 | B-8 |
| Q4310 | D-8 | D4311 | C-8 |
| Q4313 | C-7 | D4317 | A-10 |
| Q4316 | C-11 | D4320 | B-9 |
| Q4317 | C-11 | D8324 | D-2 |
| Q4318 | C-10 | D8325 | D-3 |
| Q4320 | D-10 | D8331 | C-4 |

• : Pattern from the side which enables seeing.
• : Pattern from the rear side.

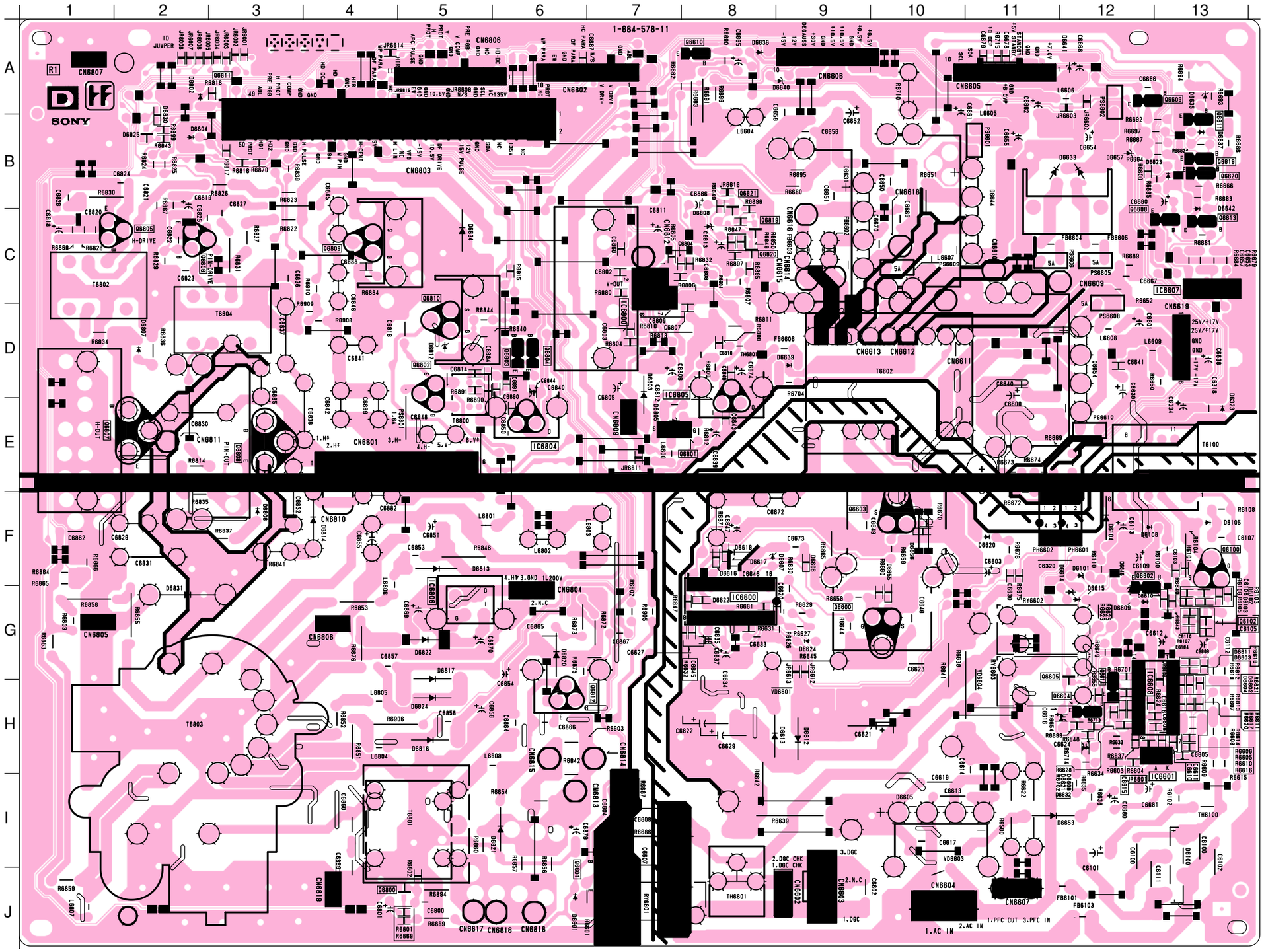
KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991

## PRINTED WIRING BOARDS

**D** [POWER SUPPLY, DEFLECTION HV]

**NOTE:**
The circuit indicated at left contains high voltage of over 1220 Vp-p. Please pay attention when inspecting or repairing it to prevent an electric shock.

– D board –



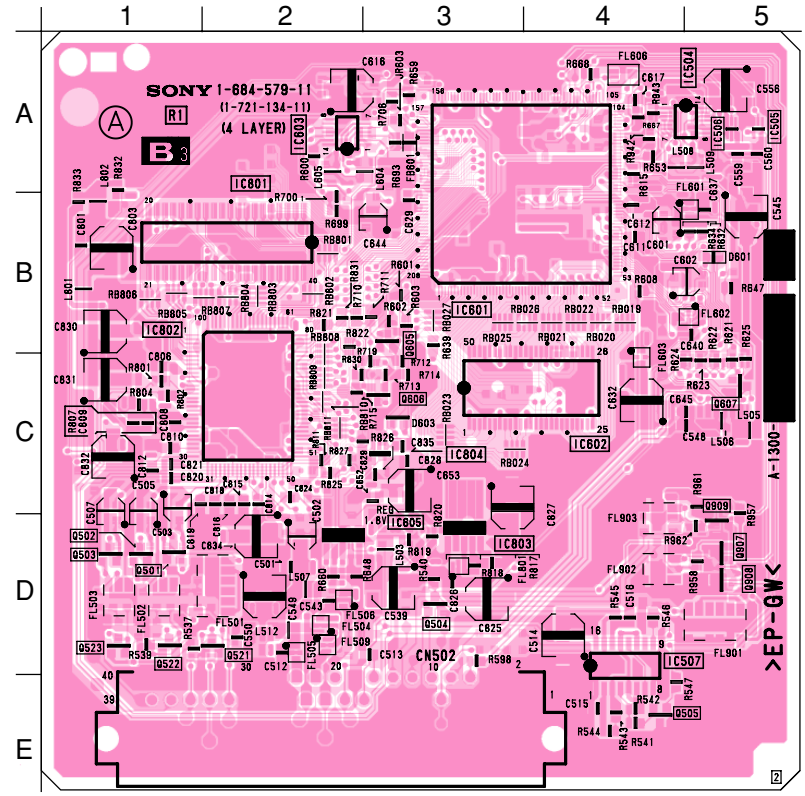

D BOARD

| IC | | TRANSISTOR | | DIODE | |
|---|---|---|---|---|---|
| IC6600 | G-8 | Q6100 | F-13 | D6100 | I-13 |
| IC6607 | C-13 | Q6102 | G-13 | D6101 | F-12 |
| IC6608 | H-12 | Q6600 | G-9 | D6102 | G-14 |
| IC6661 | I-13 | Q6601 | I-6 | D6104 | F-12 |
| IC6800 | D-7 | Q6602 | F-12 | D6105 | F-13 |
| IC6804 | E-6 | Q6603 | F-9 | D6108 | F-12 |
| IC6805 | D-7 | Q6604 | H-12 | D6323 | E-13 |
| IC6806 | G-5 | Q6605 | G-11 | D6601 | J-6 |
| | | Q6608 | B-12 | D6606 | F-9 |
| | | Q6609 | A-13 | D6607 | F-9 |
| | | Q6610 | A-8 | D6609 | G-12 |
| | | Q6611 | B-13 | D6612 | H-9 |
| | | Q6613 | C-13 | D6613 | H-9 |
| | | Q6614 | G-12 | D6614 | F-12 |
| | | Q6619 | B-13 | D6615 | G-12 |
| | | Q6620 | B-13 | D6617 | F-8 |
| | | Q6800 | J-4 | D6618 | F-8 |
| | | Q6801 | E-8 | D6620 | F-11 |
| | | Q6802 | D-5 | D6622 | G-8 |
| | | Q6803 | D-6 | D6623 | B-13 |
| | | Q6804 | D-6 | D6624 | G-9 |
| | | Q6805 | C-2 | D6631 | B-9 |
| | | Q6806 | C-2 | D6633 | B-12 |
| | | Q6807 | E-1 | D6634 | C-5 |
| | | Q6808 | E-3 | D6635 | A-13 |
| | | Q6809 | C-4 | D6636 | A-8 |
| | | Q6810 | C-5 | D6637 | B-13 |
| | | Q6811 | A-3 | D6639 | D-9 |
| | | Q6812 | H-7 | D6640 | A-9 |
| | | Q6819 | C-8 | D6641 | A-12 |
| | | Q6820 | C-8 | D6644 | B-11 |
| | | Q6821 | B-8 | D6648 | F-12 |
| | | | | D6653 | I-12 |
| | | | | D6654 | D-12 |
| | | | | D6655 | F-10 |
| | | | | D6656 | F-10 |
| | | | | D6657 | B-12 |
| | | | | D6802 | A-2 |
| | | | | D6803 | D-7 |
| | | | | D6804 | B-2 |
| | | | | D6805 | E-7 |
| | | | | D6806 | F-3 |
| | | | | D6807 | D-2 |
| | | | | D6808 | C-8 |
| | | | | D6810 | G-12 |
| | | | | D6812 | D-5 |
| | | | | D6813 | F-5 |
| | | | | D6816 | H-5 |
| | | | | D6817 | G-5 |
| | | | | D6820 | G-6 |
| | | | | D6821 | I-6 |
| | | | | D6822 | G-5 |
| | | | | D6824 | H-5 |
| | | | | D6825 | B-2 |
| | | | | D6830 | A-2 |
| | | | | D6831 | G-2 |

## PRINTED WIRING BOARDS

**B3** [DIGITAL REALITY CREATION-MF, 3D NOISE REDUCTION]

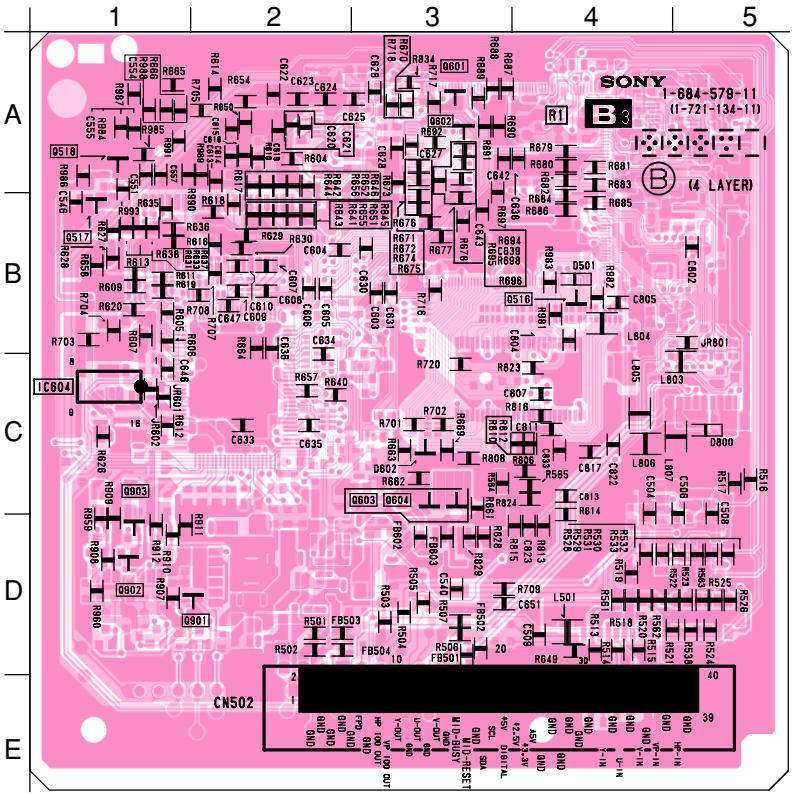
### – B3 board (Component Side) –




B3 board (Component Side)

| IC | | Q502 | D-1 |
|---|---|---|---|
| | | Q503 | D-1 |
| IC504 | A-5 | Q504 | D-3 |
| IC505 | A-5 | Q505 | E-5 |
| IC507 | D-5 | Q521 | D-2 |
| IC508 | A-5 | Q522 | D-1 |
| IC601 | B-3 | Q523 | D-1 |
| IC602 | C-4 | Q605 | B-3 |
| IC603 | A-2 | Q606 | C-3 |
| IC605 | D-3 | Q607 | C-5 |
| IC801 | A-2 | Q907 | D-5 |
| IC802 | B-1 | Q908 | D-5 |
| IC803 | D-3 | Q909 | D-5 |
| IC804 | C-3 | | |
| **TRANSISTOR** | | **DIODE** | |
| Q501 | D-1 | D601 | B-5 |
| | | D603 | C-3 |

### – B3 board (Conductor Side) –



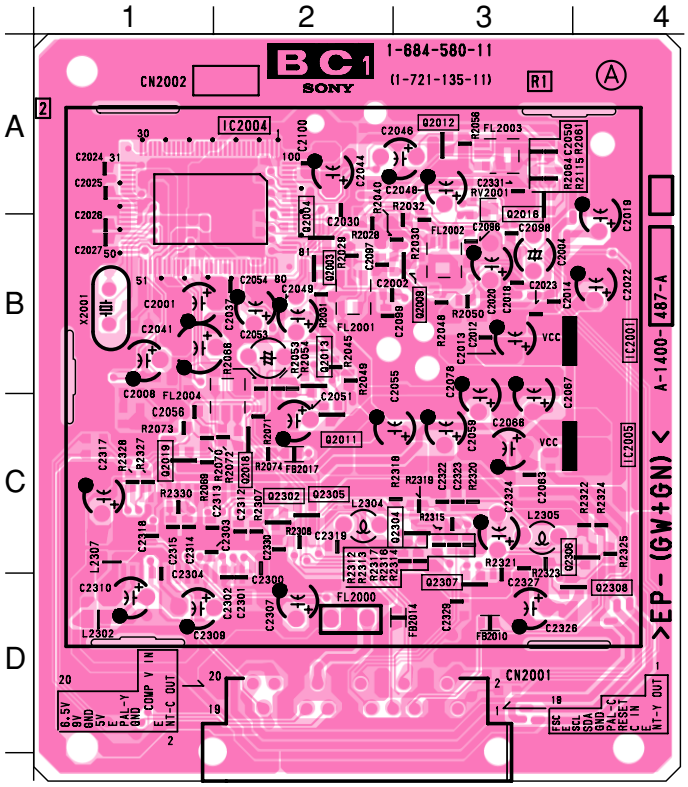

B3 board (Conductor Side)

| IC | |
|---|---|
| IC604 | C-1 |
| **TRANSISTOR** | |
| Q516 | B-4 |
| Q517 | B-1 |
| Q518 | A-1 |
| Q601 | A-3 |
| Q602 | A-3 |
| Q603 | C-3 |
| Q604 | C-3 |
| Q901 | D-2 |
| Q902 | D-1 |
| Q903 | C-1 |
| **DIODE** | |
| D501 | B-4 |
| D602 | C-3 |
| D800 | C-5 |

- : Pattern from the side which enables seeing.
- : Pattern from the rear side.

# BC1 [2D & 3D DIGITAL COMB]

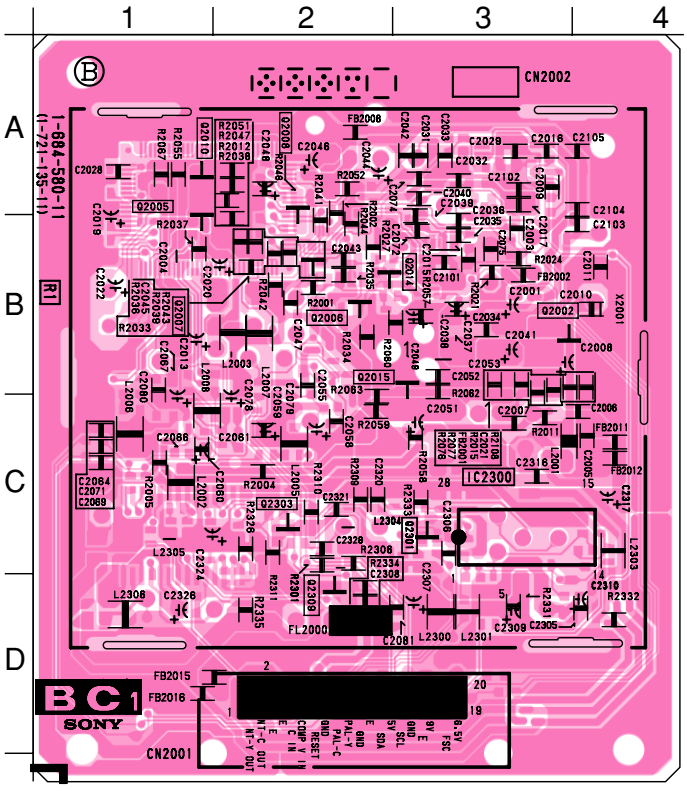
## – BC1 board (Component Side) –




BC1 board (Component Side)

| IC | |
|---|---|
| IC2001 | B-4 |
| IC2004 | A-2 |
| IC2005 | C-4 |
| **TRANSISTOR** | |
| Q2003 | B-2 |
| Q2004 | B-2 |
| Q2009 | B-3 |
| Q2011 | C-2 |
| Q2012 | A-3 |
| Q2013 | B-2 |
| Q2016 | B-3 |
| Q2018 | C-2 |
| Q2019 | C-1 |
| Q2302 | C-2 |
| Q2304 | C-3 |
| Q2305 | C-2 |
| Q2306 | C-3 |
| Q2307 | D-3 |
| Q2308 | D-4 |

## – BC1 board (Conductor Side) –




BC1 board (Conductor Side)

| IC | |
|---|---|
| IC2300 | C-3 |
| **TRANSISTOR** | |
| Q2002 | B-3 |
| Q2005 | A-1 |
| Q2006 | B-2 |
| Q2007 | B-1 |
| Q2008 | A-2 |
| Q2010 | A-1 |
| Q2014 | B-3 |
| Q2015 | B-2 |
| Q2301 | C-3 |
| Q2303 | C-2 |
| Q2308 | D-2 |

- : Pattern from the side which enables seeing.
- : Pattern from the rear side.

KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991

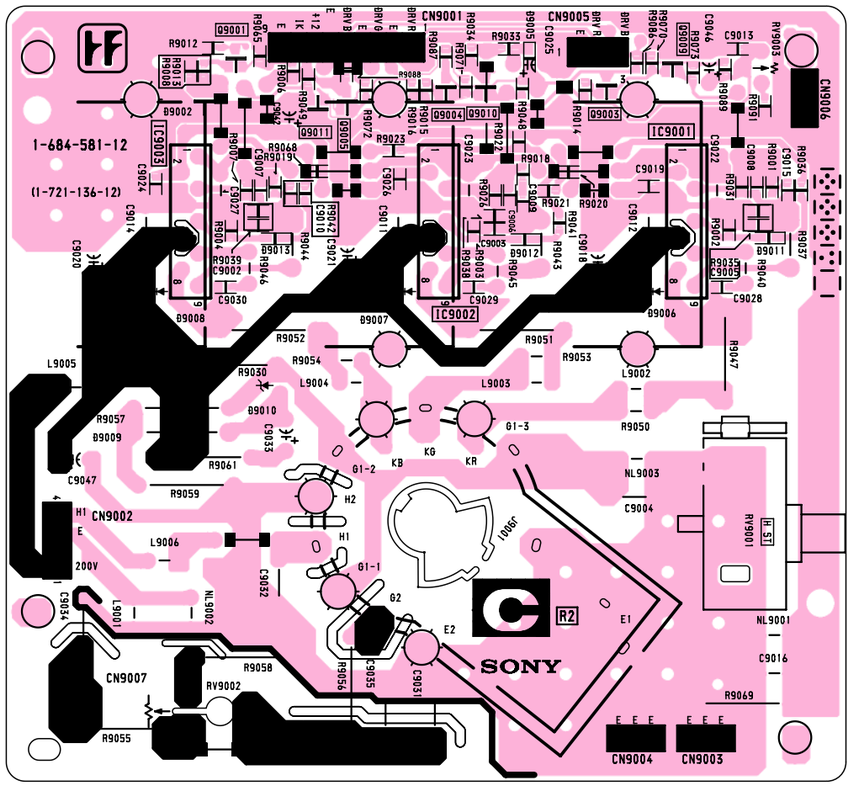
## PRINTED WIRING BOARDS

**C** [VIDEO AMPLIFIER]

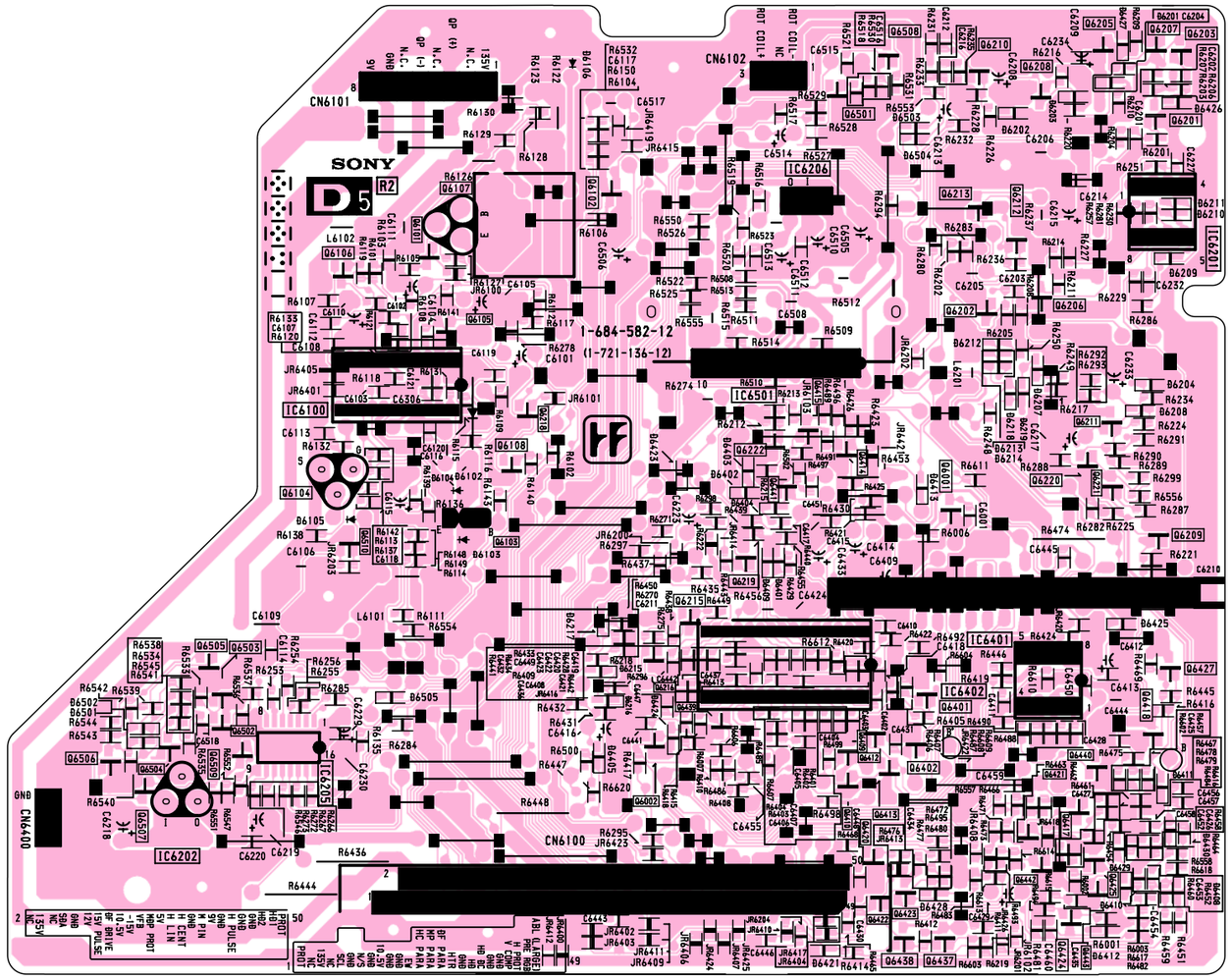
**D5** [DEFLECTION CONTROL CIRCUIT]

**H1** [S-TERMINAL INPUT, AV INPUT, PRESET KEY, PHONE OUT]

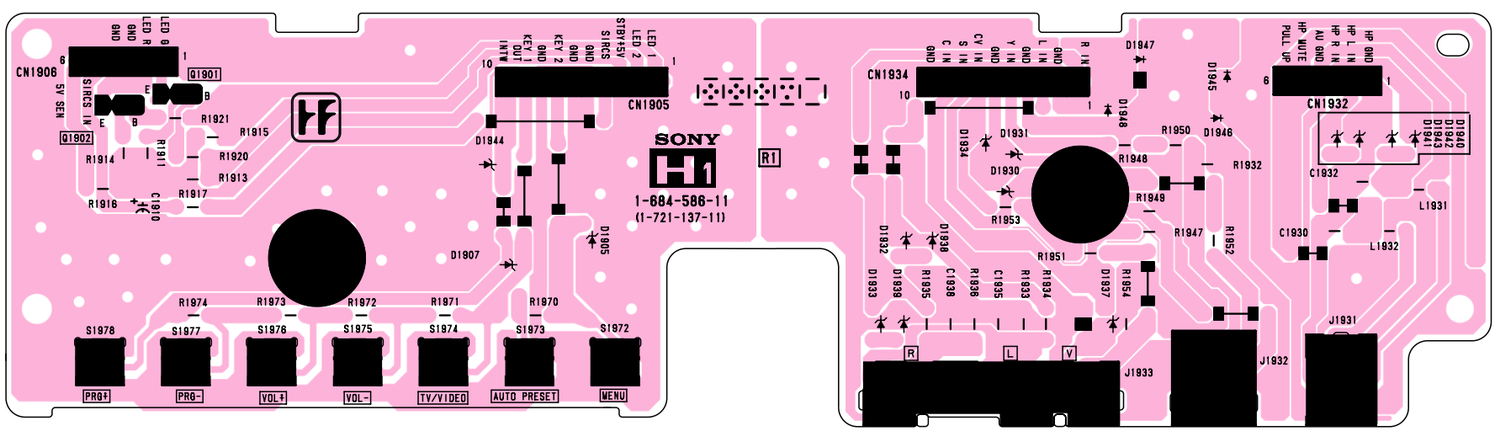
**– C board –**




**– D5 board –**




**– H1 board –**

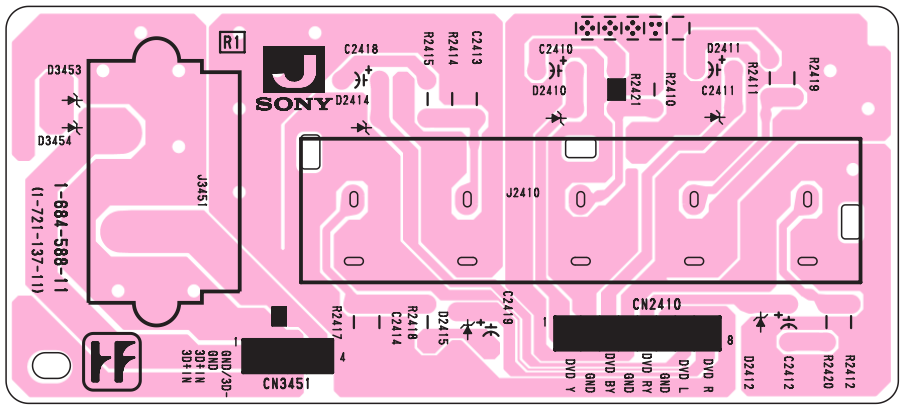


## PRINTED WIRING BOARDS

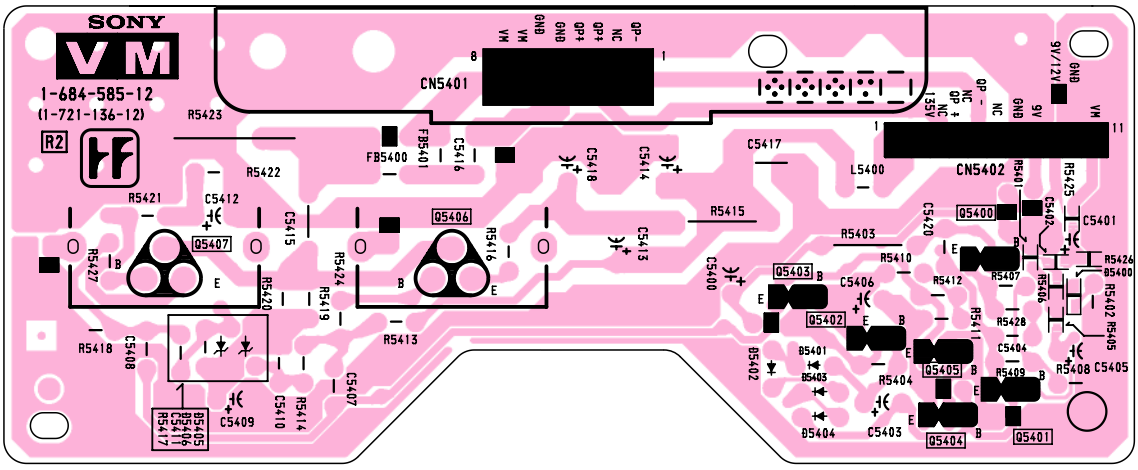
**J** [COMPONENT IN]

**VM** [VELOCITY MODULATION]

**– J board –**




**– VM board –**

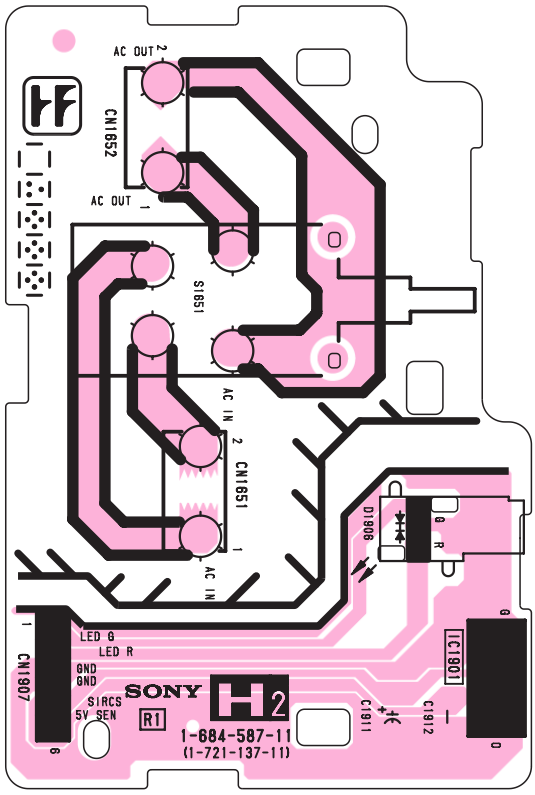


## PRINTED WIRING BOARDS

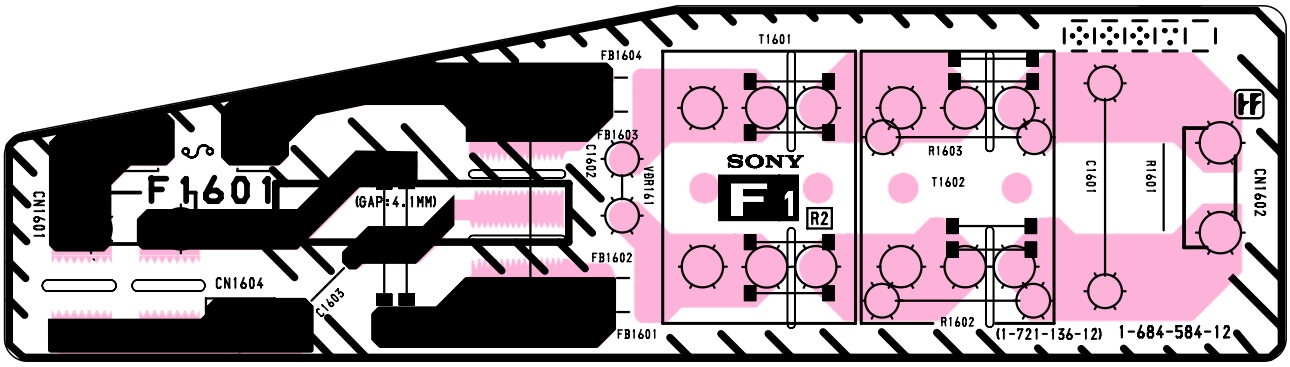
**H2** [POWER SW, LED, SIRCS RECEIVER]

**F1** [AC LINE FILTER]

### – H2 board –



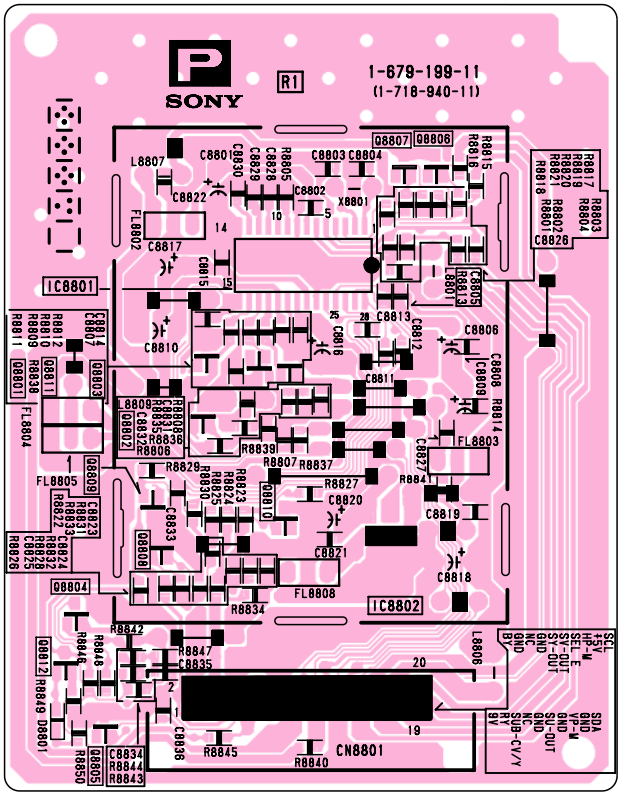

### – F1 board –



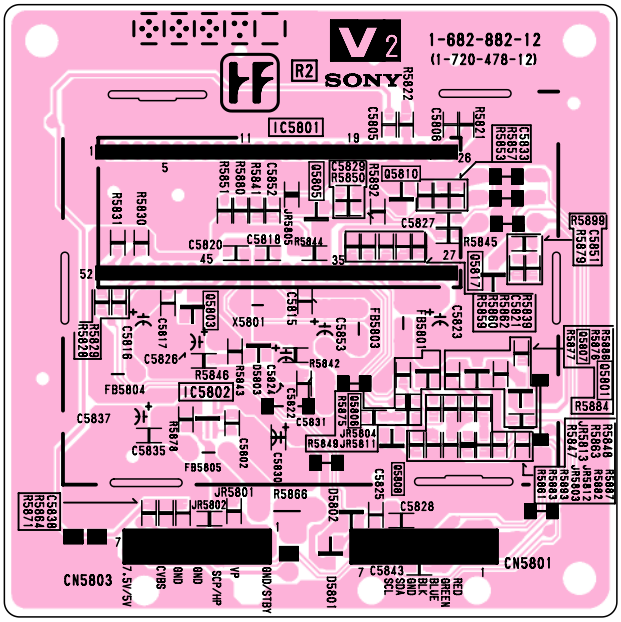
## PRINTED WIRING BOARDS

**P** [PICTURE IN PICTURE FEATURES]  **V2** [TELETEXT ]

### – P board – (except KV-DR29M63)

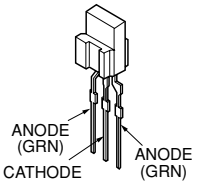
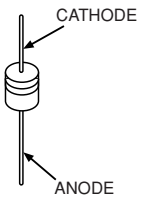
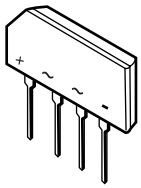
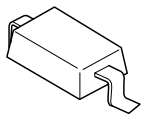
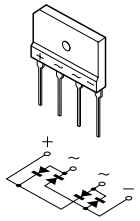


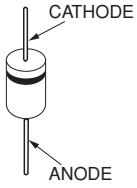
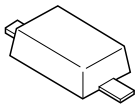
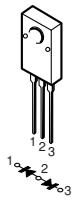
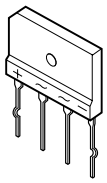

### – V2 board – (except KV-DR29M63)

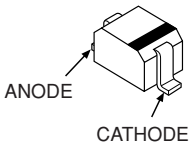
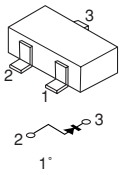
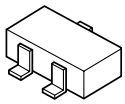
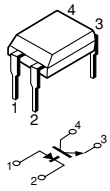
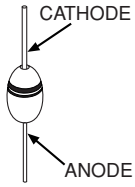


## 7-5 SEMICONDUCTORS

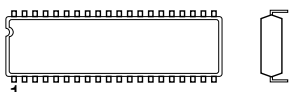
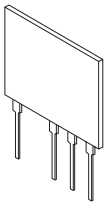
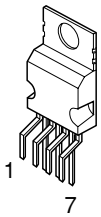
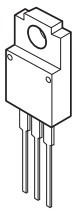
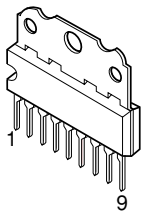
DIODE

| | | | | | |
|---|---|---|---|---|---|
|  |  | |  |  |  |
| SPB-25MVWF | D1NS4<br>RD22ES-B1<br>D1N20R<br>RD12ESB1<br>RD15ESB1<br>ERA38-06<br>ERA85-009 | RD10ESB2<br>RD4.7ESB2<br>RD18ESB<br>RD30ESB2<br>RD6.8ESB1<br>11EQS04 | D2SB60A-F04 | MM3Z15VT1<br>MMDL914T1<br>MM3Z3V9T1 | D4SB60L<br>D4SBL20U |

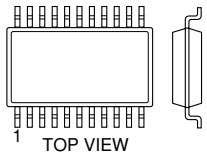
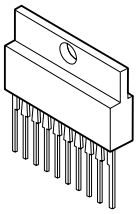
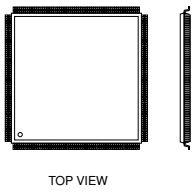
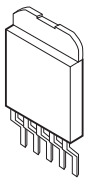
| | | | | | |
|---|---|---|---|---|---|
|  | |  |  |  | |
| ERA22-08<br>D1NS6<br>1SS119-25<br>S3L20UF4<br>ELIZ<br>RGP02-20EL-6394<br>NNCD9.1A-T1<br>HZS9.1NB2 | HSS83TD<br>GP08D<br>1SS133T-77<br>RD2.2M-T1B | MA111-TX<br>UDZ-TE-17-9.1B | D10SC4M | D10SBS4F | RD7.5ESB1 |

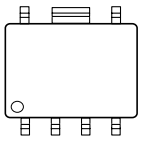
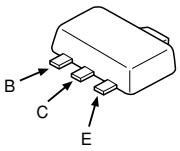
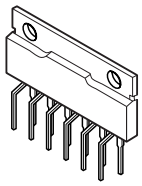
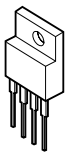
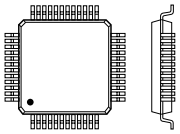
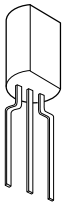
| | | | | | |
|---|---|---|---|---|---|
|  |  | |  |  |  |
| 1SS355TE-17<br>RD5.6SB3<br>DTZ-TT11-16B<br>MA113-(TX)<br>RD9.1SB<br>RD7.5SB-T1<br>UDZS-TE17-16B<br>1SS355TE-17 | MA3091<br>MA3062M-TX | D1NL-20U<br>UF4005PKG23 | M1MA152WK-T1 | ON3171-R | ERC06-15SA |

IC

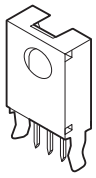
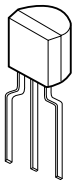
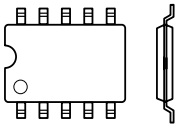
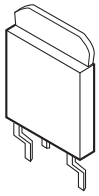
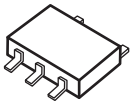
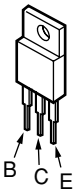
| | | | | | |
|---|---|---|---|---|---|
| DIP<br>  <br>TOP VIEW<br>Dual In-line Package<br>Pin 6～98 | |  |  |  |  |
| MCZ3001D<br>UPC339C<br>LM393N<br>NJU4066M<br>UPC358C<br>UPC5023CS-184<br>UPC1898<br>TDA9178 | | DM-58 | STV9379A | BA09T<br>BA12T<br>TA7805S<br>PQ09RF2 | TDA6111Q/N4 |

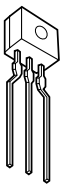
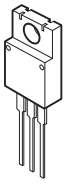
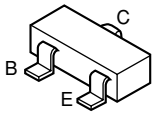
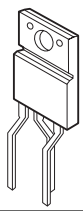
IC

| | | | | | |
|---|---|---|---|---|---|
| SOP   TOP VIEW<br>Small outline L-leaded<br>Pin 8～98 | |  |  TOP VIEW | TOP VIEW |  |
| SDA9588XB23<br>TLC2933IPWR-12<br>TC7SET08FU(TE85R)<br>TLC2932IPWR<br>CXA1875AM-T4<br>UPC4558G2<br>NJM4560M<br>MM1115XFBE | M52055FP<br>MSM514265E-60JSDR1<br>TC90A69F<br>BU4053BCF-E2<br>M24C16-MN6T(A) | LA6510 | CXD2095AQ<br>UPD64083<br>CXP750096-044Q | MT48LC1M16A1TG65 | PQ07VZ012ZP |

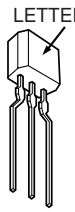
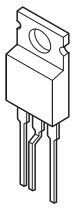
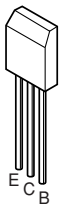
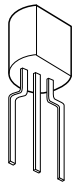
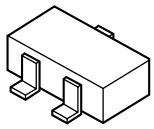
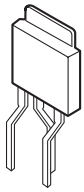
| | | | | | |
|---|---|---|---|---|---|
|  |   |  |  |  |  |
| MM1476AF(TP) | S-80743AL-A7-T1 | AN7583Z | PQ05RF2 | CXA2151Q<br>TC90A90F<br>CXA2150Q<br>CXA2069Q<br>CXA2163AQ | NJM78L05A |

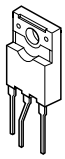
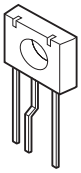
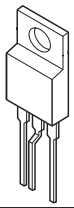
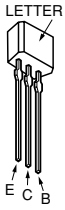
TRANSISTOR

| | | | | | |
|---|---|---|---|---|---|
|  |  |  |  |  |   |
| SBX1981-51P | UPC1093J-1-T<br>NJM79L12A-T1 | BR24C16F-E2 | BA25BC0FP-E2<br>BA033FP-E2 | NJM2870F33-TE2 | IRF1740G |

| | | | | | |
|---|---|---|---|---|---|
|  |  |   | |  | |
| 2SC2785-HFE<br>2SA1175-HFE<br>DTC114ESA<br>DTC144ESA | 2SA2005<br>2SC5511<br>IRF1830G-LF49<br>2SC3840(3) | 2SD2114K<br>2SC2712-YG<br>UN2213<br>2SA1037AK-T146-R<br>MSB709-RT1<br>2SA1162-G<br>UN2211<br>DTC114TKA-T146 | DTC144EKA<br>2SC2223-F13<br>2SD601A-Q-TX<br>DTC114EKA-T146<br>MSD601-RT1<br>2SC1623-L5L6 | IRF1B7N50A-LF31 | 2SC2500-B |

TRANSISTOR

| | | | | | |
|---|---|---|---|---|---|
|  |  |  |  |  |  |
| DTA144ESA | IRF720-LF49 | 2SD774-34<br>2SB733-34 | 2SK246-GR | DTC143TKA-T146 | 2SK2663 |

| | | | | | |
|---|---|---|---|---|---|
|  |  |  |  | | |
| 2SC5698-SONY-CA<br>2SC5696-SONY-CA | 2SB1142-T | IRF1614-005 | DTA144ESA | | |

# SECTION 8
# EXPLODED VIEWS

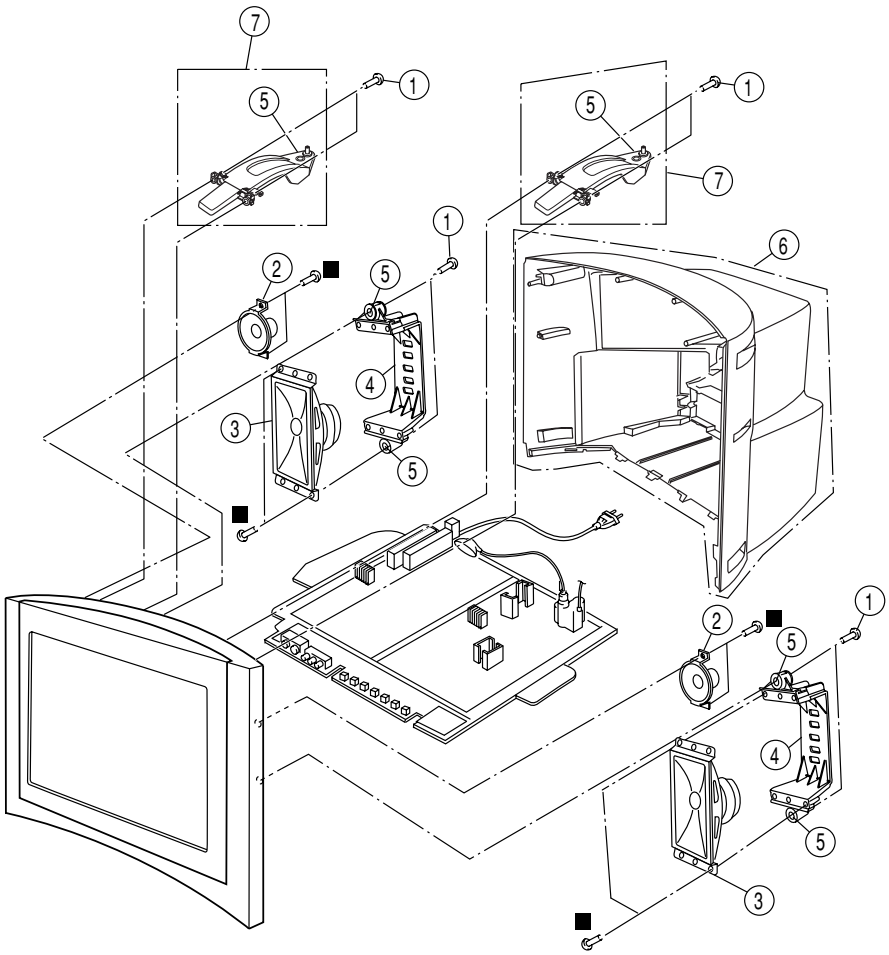
**NOTE:**

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

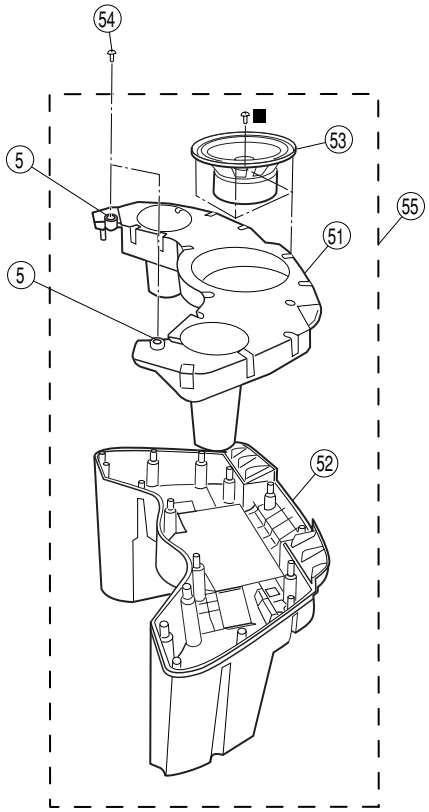
## 8-1. SPEAKER BRACKET

■ : 7-685-663-71 SCREW +BVTP 4 × 16



## 8-2. 3D SPEAKER

■ : 7-685-663-71 SCREW +BVTP 4 × 16

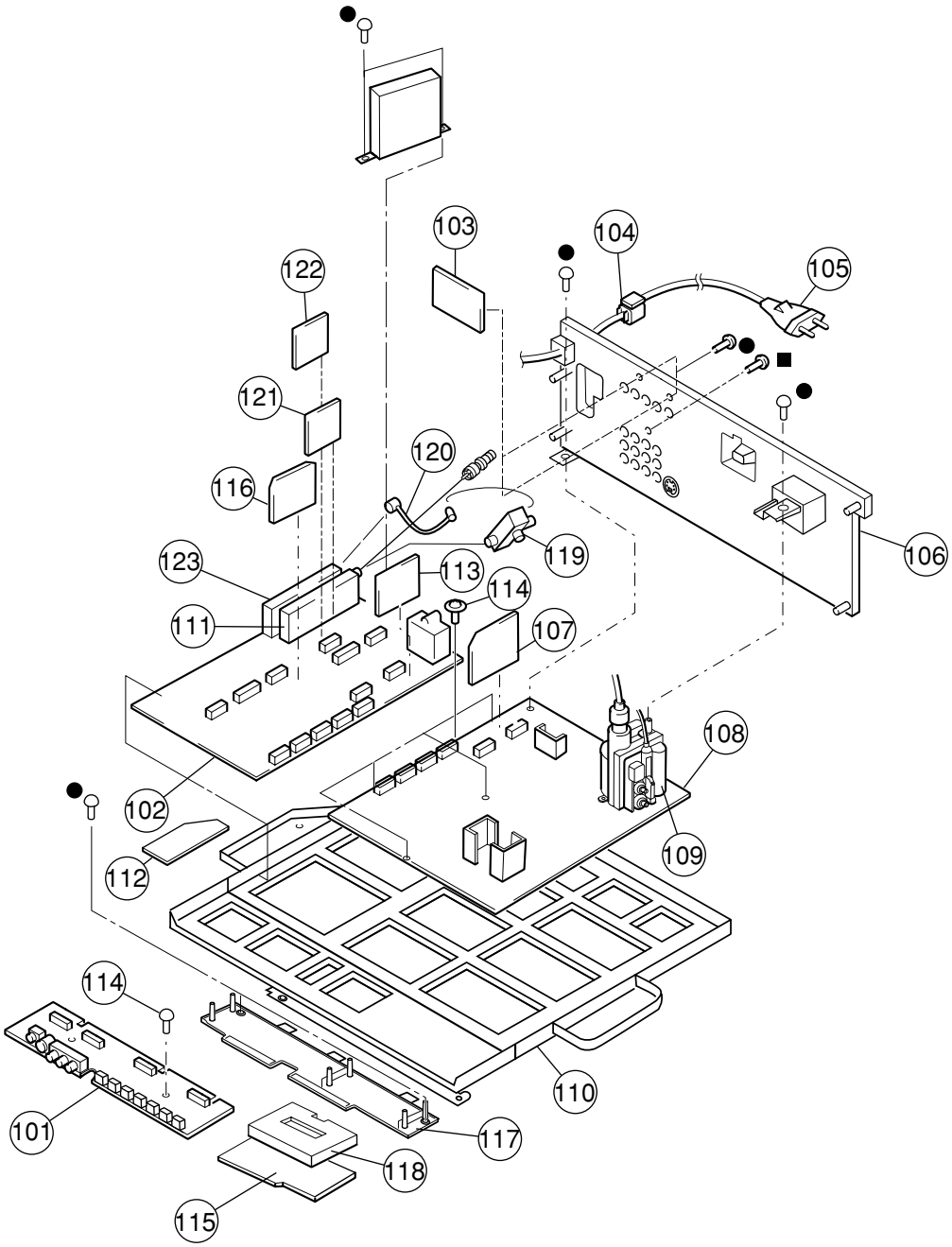


| REF. NO. | | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|---|
| 1 | | 4-302-404-03 | SCREW (WASHER HEAD)(+P4 x 16) | |
| 2 | | 1-825-163-11 | SPEAKER (5CM) | |
| 3 | | 1-825-164-11 | SPEAKER (13 x 6CM) | |
| 4 | * | 4-086-708-01 | BRACKET,SPEAKER | |
| 5 | | 4-374-745-21 | CUSHION (A) | |
| 6 | | X-4040-341-1 | REAR COVER ( ■ 14 SCREWS) | |
| 7 | * | X-4039-979-1 | BRACKET ASSY, WOOFER (KV-DR29M39/DR29M69/DR29M89) | 5 |
| | * | 4-086-709-01 | BRACKET , WOOFER (29) (KV-DR29M63) | |

| REF. NO. | | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|---|
| 51 | * | 4-087-460-01 | 3D BOX, TOP | ( ■ 20 SCREWS) |
| 52 | * | 4-087-461-01 | 3D BOX, BOTTOM | |
| 53 | | 1-825-162-11 | SPEAKER (16CM) | |
| 54 | | 4-064-929-02 | SCREW, TP+TWH 4x25 | |
| 55 | | A-1601-923-A | 3D BOX ASSY | 51-53 |

## 8-3. CHASSIS

●: 7-685-648-79 SCREW +BVTP 3 × 12
■: 7-685-663-71 SCREW +BVTP 4 × 16



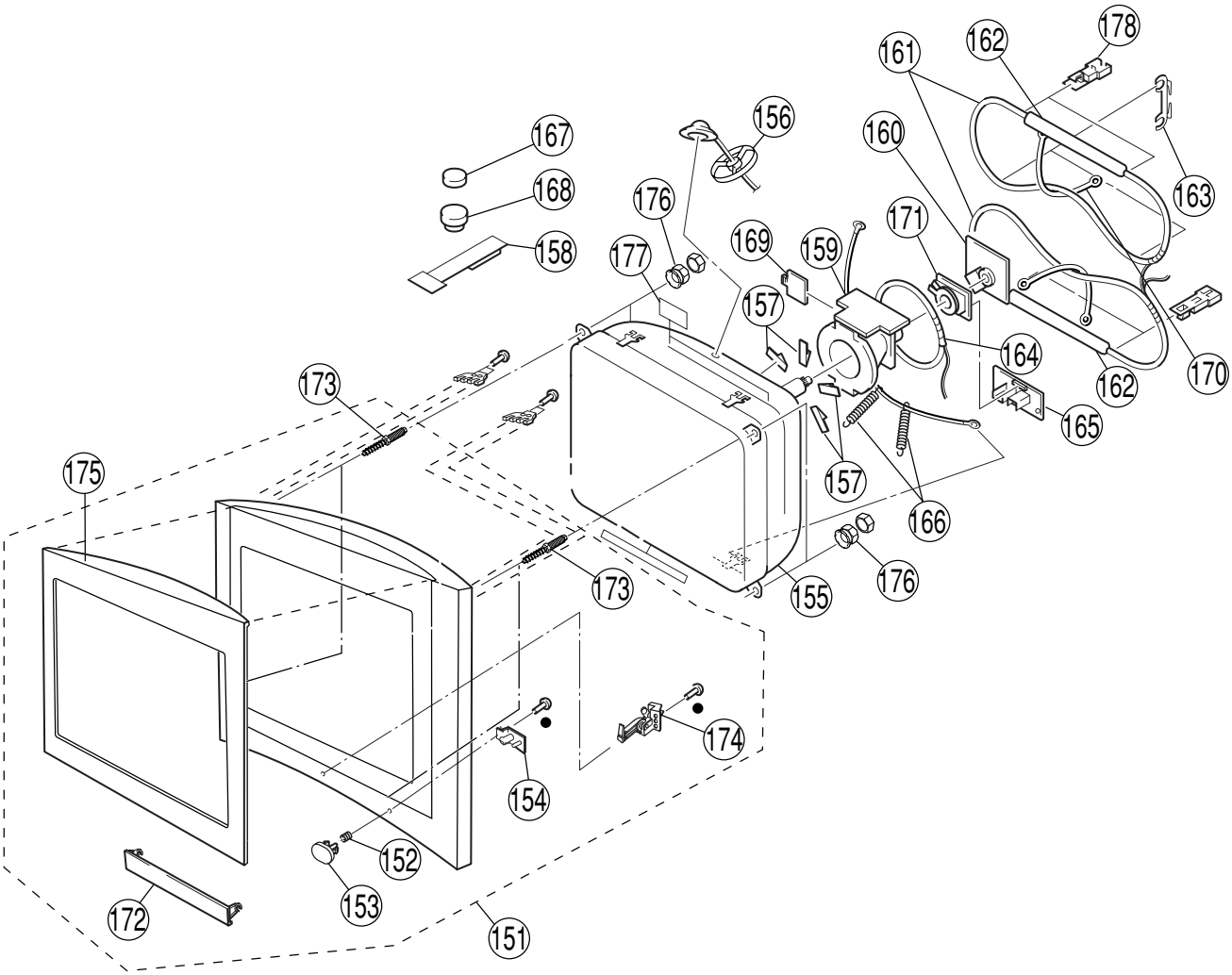
| REF. NO. | | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|---|
| 101 | * | A-1400-491-A | H1 BOARD, MOUNTED (KV-DR29M39/DR29M69/DR29M89) | |
| | * | A-1400-692-A | H1 BOARD, MOUNTED (KV-DR29M63) | |
| 102 | * | A-1300-392-A | A BOARD, COMPLETE (KV-DR29M39) | |
| | * | A-1300-386-A | A BOARD, COMPLETE (KV-DR29M63) | |
| | * | A-1300-513-A | A BOARD, COMPLETE (KV-DR29M69) | |
| | * | A-1300-404-A | A BOARD, COMPLETE (KV-DR29M89) | |
| 103 | * | A-1400-500-A | J BOARD, MOUNTED (KV-DR29M39/DR29M69/DR29M89) | |
| | * | A-1400-695-A | J BOARD, MOUNTED (KV-DR29M63) | |
| 104 | ⚠ | 4-022-115-12 | HOLDER, AC CORD (KV-DR29M39/DR29M69/DR29M89) | |
| | ⚠ | 4-022-115-31 | HOLDER, AC CORD (KV-DR29M63) | |
| 105 | ⚠ | 1-823-476-11 | CORD, AC POWER (WITH FILTER) (KV-DR29M39) | |
| | ⚠ | 1-575-023-41 | CORD, POWER (WITH CONNECTOR) (KV-DR29M63) | |
| | ⚠ | 1-823-551-11 | CORD, AC POWER (WITH CONNECTOR) (KV-DR29M69/DR29M89) | |
| 106 | * | 4-086-706-01 | BRACKET, TERMINAL (KV-DR29M39/DR29M69/DR29M89) | |
| | * | 4-086-706-11 | BRACKET, TERMINAL (KV-DR29M63) | |
| 107 | * | A-1400-486-A | D5 BOARD, MOUNTED (KV-DR29M39/DR29M69/DR29M89) | |
| | * | A-1400-689-A | D5 BOARD, MOUNTED (KV-DR29M63) | |
| 108 | * | A-1300-292-A | D BOARD, COMPLETE (KV-DR29M39) | |
| | * | A-1300-387-A | D BOARD, COMPLETE (KV-DR29M63) | |
| | * | A-1300-405-A | D BOARD, COMPLETE (KV-DR29M69/DR29M89) | |
| 109 | ⚠ | 1-453-325-12 | TRANSFORMER ASSY, FLYBACK (NX-4522//M3B4) | |
| 110 | * | 4-086-321-01 | BRACKET, MAIN | |
| 111 | | 8-598-450-00 | TUNER, FSS BTF-LG434 (KV-DR29M89) | |
| | | 8-598-451-20 | TUNER, FSS BTF-WG441 (KV-DR29M63) | |
| | | 8-598-452-20 | TUNER, FSS BTF-WG442 (KV-DR29M39/DR29M69) | |
| 112 | * | A-1400-490-A | F1 BOARD, MOUNTED (KV-DR29M39) | |
| | * | A-1400-691-A | F1 BOARD, MOUNTED (KV-DR29M63) | |
| | * | A-1400-746-A | F1 BOARD, MOUNTED (KV-DR29M69/DR29M89) | |
| 113 | * | A-1300-290-A | B3 BOARD, COMPLETE (KV-DR29M39/DR29M69/DR29M89) | |
| | * | A-1300-385-A | B3 BOARD, COMPLETE (KV-DR29M63) | |
| 114 | | 4-046-797-01 | SCREW (3 x 12)(+)BVTP (KV-DR29M39/DR29M69/DR29M89) | |
| | | 4-046-797-21 | SCREW (3 x 12)(+)BVTP (KV-DR29M63) | |
| 115 | * | A-1400-492-A | H2 BOARD MOUNTED (KV-DR29M39/DR29M69/DR29M89) | |
| | * | A-1400-693-A | H2 BOARD MOUNTED (KV-DR29M63) | |
| 116 | * | A-1300-298-A | BC1 BOARD MOUNTED (KV-DR29M39/DR29M69/DR29M89) | |
| | * | A-1300-388-A | BC1 BOARD MOUNTED (KV-DR29M63) | |
| 117 | * | 4-086-449-02 | BRACKET, H | |
| 118 | * | 4-086-450-01 | COVER, H | |
| 119 | | 1-251-658-21 | SPLITTER RF (KV-DR29M39/DR29M69/DR29M89) | |
| 120 | * | 1-555-110-00 | P-P CABLE (KV-DR29M39/DR29M69/DR29M89) | |
| 121 | | A-1300-299-A | P BOARD COMPLETE (KV-DR29M39/DR29M69/DR29M89) | |
| 122 | | A-1400-711-A | V2 BOARD MOUNTED (KV-DR29M39/DR29M69/DR29M89) | |
| 123 | | 8-598-450-10 | TUNER, FSS BTF-LG434 (KV-DR29M39/DR29M69/DR29M89) | |

## 8-4. PICTURE TUBE

● : 7-685-648-79 SCREW +BVTP 3 × 12
■ : 7-685-663-71 SCREW +BVTP 4 × 16

**NOTE:**

- The picture tube for OCE model is upside-down and the position for the anode cap and tension springs are changed accordingly. (KV-DR29M39 (OCE) only)



| REF. NO. | | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|---|
| 151 | | X-4040-251-1 | CABINET ASSY (KV-DR29M39/DR29M69) | 152-154,172-175 |
| | | X-4040-194-1 | CABINET ASSY (KV-DR29M63) | |
| | | X-4040-190-1 | CABINET ASSY (KV-DR29M89) | |
| 152 | * | 4-036-405-11 | SPRING, COMPRESSION (KV-DR29M39/DR29M69/DR29M89) | |
| | * | 4-036-405-21 | SPRING, COMPRESSION (KV-DR29M63) | |
| 153 | * | 4-086-448-01 | BUTTON, POWER (KV-DR29M39/DR29M69/DR29M89) | |
| | * | 4-088-316-01 | BUTTON, POWER (KV-DR29M63) | |
| 154 | | 4-086-707-01 | GUIDE, LIGHT | |
| 155 | ⚠ | 8-735-056-05 | PICTURE TUBE (M68LNH070X) (KV-DR29M63) | |
| | ⚠ | 8-735-057-05 | PICTURE TUBE (M68LNH070X) (KV-DR29M39/DR29M69/DR29M89) | |
| 156 | * | 3-704-372-11 | HOLDER, HV CABLE (KV-DR29M39) | |
| 157 | | 4-046-600-11 | SPACER, DY (KV-DR29M39/DR29M69/DR29M89) | |
| | | 4-064-818-01 | SPACER, DY (KV-DR29M63) | |
| 158 | | X-4387-214-3 | PERMALOY ASSY, CORRECTION (KV-DR29M39/DR29M69/DR29M89) | |
| | | 4-051-734-42 | PIECE B (120) CONV CORRECT (KV-DR29M63) | |
| 159 | ⚠ | 8-451-504-61 | DEFLECTION YOKE (Y29RSC-S2) | |
| 160 | * | A-1400-488-A | C BOARD, MOUNTED (KV-DR29M39/DR29M69/DR29M89) | |
| | * | A-1400-690-A | C BOARD, MOUNTED (KV-DR29M63) | |
| 161 | ⚠ | 1-419-323-21 | COIL, DEGAUSSING (KV-DR29M39) | |
| | ⚠ | 1-419-323-31 | COIL, DEGAUSSING (KV-DR29M63) | |
| | ⚠ | 1-419-294-21 | COIL, DEGAUSSING (KV-DR29M69/DR29M89) | |
| 162 | * | 4-063-935-21 | CUSHION (50 x 550), DGC | |
| 163 | | 4-064-883-03 | HOLDER, DGC | |
| 164 | | 1-452-896-11 | COIL, NA ROTATION (RT200) (KV-DR29M39/DR29M69/DR29M89) | |
| | | 1-452-896-91 | COIL, NA ROTATION (KV-DR29M63) | |
| 165 | * | A-1400-499-A | VM BOARD, MOUNTED (KV-DR29M39/DR29M69/DR29M89) | |
| | * | A-1400-694-A | VM BOARD, MOUNTED (KV-DR29M63) | |
| 166 | | 4-369-318-61 | SPRING, TENSION (KV-DR29M39/DR29M69/DR29M89) | |
| | | 4-369-318-41 | SPRING, TENSION (KV-DR29M63) | |
| 167 | | 1-452-032-00 | MAGNET, DISC | |
| 168 | | 1-452-094-00 | CIRCULAR DISC MAGNET B | |
| 169 | | 4-077-228-02 | PIECE, TLH CONVERGENCE | |
| 170 | | 4-079-376-01 | BAND, DGC<br>- QUANTITY 2 (TOP(1), BOTTOM (1)) (KV-DR29M39 ONLY)<br>- QUANTITY 1 (TOP(1) ONLY) (EXCEPT KV-DR29M39) | |
| 171 | | 8-453-011-41 | NA299-C | |
| 172 | | X-4039-978-1 | DOOR ASSY CONTROL (KV-DR29M39/DR29M69/DR29M89) | |
| | | X-4040-195-1 | DOOR ASSY CONTROL (KV-DR29M63) | |
| 173 | | 4-079-175-01 | SCREW, CRT (TAPPING 7+M8) | |
| 174 | | 4-083-848-02 | DAMPER DOOR | |
| 175 | | X-4039-976-1 | BEZEL ASSY ( ■ 18 SCREWS) | |
| 176 | | 4-387-204-01 | NUT, SPECIAL CRT | |
| 177 | | 4-069-652-02 | CUSHION (HS BAND) (KV-DR29M39/DR29M69/DR29M89) | |
| | | 4-069-652-11 | CUSHION (HS BAND) (KV-DR29M63) | |
| 178 | * | 4-062-970-12 | CLIP (29RSN), DGC | |

# SECTION 9
# ELECTRICAL PARTS LIST

A

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All resistors are in ohms
- F : nonflammable

CAPACITORS
- MF : µF, PF : µµF

COILS
- MMH : mH, UH : µH

| REF NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| | * A-1300-392-A | A BOARD COMPLETE (KV-DR29M39) | | | |
| | * A-1300-386-A | A BOARD COMPLETE (KV-DR29M63) | | | |
| | * A-1300-513-A | A BOARD COMPLETE (KV-DR29M69) | | | |
| | * A-1300-404-A | A BOARD COMPLETE (KV-DR29M89) | | | |
| | | ********** | | | |
| | 4-382-854-11 | SCREW (M3X10), P, SW (+) | | | |
| | | <CAPACITOR> | | | |
| C001 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C002 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C004 | 1-163-001-11 | CERAMIC CHIP | 220PF | 10.00% | 50V |
| C005 | 1-163-001-11 | CERAMIC CHIP | 220PF | 10.00% | 50V |
| C006 | 1-107-725-11 | CERAMIC CHIP | 0.1UF | 10.00% | 16V |
| C007 | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C009 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C010 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C012 | 1-163-227-11 | CERAMIC CHIP | 10PF | 0.50PF | 50V |
| C013 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C014 | 1-126-967-11 | ELECT | 47UF | 20.00% | 50V |
| C015 | 1-163-227-11 | CERAMIC CHIP | 10PF | 0.50PF | 50V |
| C016 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5.00% | 50V |
| C017 | 1-163-247-91 | CERAMIC CHIP | 68PF | 5.00% | 50V |
| C020 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C021 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C022 | 1-163-809-11 | CERAMIC CHIP | 0.047UF | 10.00% | 25V |
| C024 | 1-163-227-11 | CERAMIC CHIP | 10PF | 0.50PF | 50V |
| C028 | 1-163-037-11 | CERAMIC CHIP | 0.022UF | 10.00% | 50V |
| C030 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C031 | 1-107-823-11 | CERAMIC CHIP | 0.47UF | 10.00% | 16V |
| C032 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C033 | 1-115-339-11 | CERAMIC CHIP | 0.1UF | 10.00% | 50V |
| C034 | 1-163-259-91 | CERAMIC CHIP | 220PF | 5.00% | 50V |
| C035 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C036 | 1-104-665-11 | ELECT | 100UF | 20.00% | 25V |
| C041 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C043 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C044 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C045 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C046 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C047 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C048 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C050 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C052 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C053 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C103 | 1-107-725-11 | CERAMIC CHIP | 0.1UF | 10.00% | 16V |
| C104 | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C107 | 1-163-005-91 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C108 | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C109 | 1-163-005-91 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C110 | 1-163-005-91 | CERAMIC CHIP | 470PF | 10.00% | 50V |

| REF NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| C111 | 1-163-005-91 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C112 | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C113 | 1-126-967-11 | ELECT | 47UF | 20.00% | 50V |
| C114 | 1-126-967-11 | ELECT | 47UF | 20.00% | 50V |
| C301 | 1-126-768-11 | ELECT | 2200UF | 20.00% | 16V |
| C326 | 1-126-963-11 | ELECT | 4.7UF | 20.00% | 50V |
| C1100 | 1-163-239-11 | CERAMIC CHIP | 33PF | 5.00% | 50V |
| C1101 | 1-163-009-91 | CERAMIC CHIP | 0.001UF | 10.00% | 50V |
| C1102 | 1-163-007-11 | CERAMIC CHIP | 680PF | 10.00% | 50V |
| C1200 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C1201 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| C1202 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C1203 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C1204 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C1205 | 1-107-698-11 | ELECT | 10UF | 20.00% | 25V |
| C1206 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| C1207 | 1-107-698-11 | ELECT | 10UF | 20.00% | 25V |
| C1208 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C1209 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C1210 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C1211 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C1215 | 1-126-960-11 | ELECT | 1UF | 20.00% | 50V |
| C1216 | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C1217 | 1-104-665-11 | ELECT | 100UF | 20.00% | 25V |
| C1220 | 1-126-960-11 | ELECT | 1UF | 20.00% | 50V |
| C1222 | 1-110-501-11 | CERAMIC CHIP | 0.33UF | 10.00% | 16V |
| C1223 | 1-126-963-11 | ELECT | 4.7UF | 20.00% | 50V |
| C1224 | 1-126-963-11 | ELECT | 4.7UF | 20.00% | 50V |
| C1225 | 1-126-963-11 | ELECT | 4.7UF | 20.00% | 50V |
| C1226 | 1-126-963-11 | ELECT | 4.7UF | 20.00% | 50V |
| C1227 | 1-126-963-11 | ELECT | 4.7UF | 20.00% | 50V |
| C1228 | 1-126-963-11 | ELECT | 4.7UF | 20.00% | 50V |
| C1229 | 1-126-963-11 | ELECT | 4.7UF | 20.00% | 50V |
| C1230 | 1-126-963-11 | ELECT | 4.7UF | 20.00% | 50V |
| C1232 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C1233 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C1234 | 1-126-974-11 | ELECT | 3300UF | 20.00% | 50V |
| C1235 | 1-163-009-91 | CERAMIC CHIP | 0.001UF | 10.00% | 50V |
| C1236 | 1-163-009-91 | CERAMIC CHIP | 0.001UF | 10.00% | 50V |
| C1237 | 1-164-489-11 | CERAMIC CHIP | 0.22UF | 10.00% | 16V |
| C1238 | 1-164-489-11 | CERAMIC CHIP | 0.22UF | 10.00% | 16V |
| C1239 | 1-115-339-11 | CERAMIC CHIP | 0.1UF | 10.00% | 50V |
| C1241 | 1-128-550-11 | ELECT | 2200UF | 20.00% | 50V |
| C1243 | 1-126-974-11 | ELECT | 3300UF | 20.00% | 50V |
| C1244 | 1-128-550-11 | ELECT | 2200UF | 20.00% | 50V |
| C1245 | 1-128-550-11 | ELECT | 2200UF | 20.00% | 50V |
| C1247 | 1-164-505-11 | CERAMIC CHIP | 2.2UF | | 16V |
| C1248 | 1-163-037-11 | CERAMIC CHIP | 0.022UF | 10.00% | 50V |
| C1249 | 1-163-037-11 | CERAMIC CHIP | 0.022UF | 10.00% | 50V |
| C1250 | 1-164-505-11 | CERAMIC CHIP | 2.2UF | | 16V |
| C1251 | 1-163-037-11 | CERAMIC CHIP | 0.022UF | 10.00% | 50V |

# A

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| C1252 | 1-163-037-11 | CERAMIC CHIP | 0.022UF | 10.00% | 50V |
| C1253 | 1-164-505-11 | CERAMIC CHIP | 2.2UF | | 16V |
| C1254 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C1255 | 1-126-941-11 | ELECT | 470UF | 20.00% | 25V |
| C1256 | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C1257 | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C1258 | 1-126-960-11 | ELECT | 1UF | 20.00% | 50V |
| C1259 | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C1261 | 1-126-960-11 | ELECT | 1UF | 20.00% | 50V |
| C1262 | 1-126-957-11 | ELECT | 0.22UF | 20.00% | 50V |
| C1263 | 1-126-965-91 | ELECT | 22UF | 20.00% | 50V |
| C1264 | 1-126-965-91 | ELECT | 22UF | 20.00% | 50V |
| C1265 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| C1266 | 1-126-960-11 | ELECT | 1UF | 20.00% | 50V |
| C1267 | 1-137-374-11 | MYLAR | 0.047UF | 5.00% | 50V |
| C1268 | 1-163-018-00 | CERAMIC CHIP | 0.0056UF | 10.00% | 50V |
| C1270 | 1-163-018-00 | CERAMIC CHIP | 0.0056UF | 10.00% | 50V |
| C1271 | 1-137-374-11 | MYLAR | 0.047UF | 5.00% | 50V |
| C1273 | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C1274 | 1-115-339-11 | CERAMIC CHIP | 0.1UF | 10.00% | 50V |
| C1275 | 1-126-948-11 | ELECT | 100UF | 20.00% | 35V |
| C1276 | 1-104-760-11 | CERAMIC CHIP | 0.047UF | 10.00% | 50V |
| C1277 | 1-104-760-11 | CERAMIC CHIP | 0.047UF | 10.00% | 50V |
| C1279 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C1280 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C1281 | 1-164-489-11 | CERAMIC CHIP | 0.22UF | 10.00% | 16V |
| C1282 | 1-164-489-11 | CERAMIC CHIP | 0.22UF | 10.00% | 16V |
| C1283 | 1-163-017-00 | CERAMIC CHIP | 0.0047UF | 10.00% | 50V |
| C1284 | 1-163-017-00 | CERAMIC CHIP | 0.0047UF | 10.00% | 50V |
| C1285 | 1-163-017-00 | CERAMIC CHIP | 0.0047UF | 10.00% | 50V |
| C1286 | 1-164-182-11 | CERAMIC CHIP | 0.0033UF | 10.00% | 50V |
| C1287 | 1-164-182-11 | CERAMIC CHIP | 0.0033UF | 10.00% | 50V |
| C1288 | 1-163-989-11 | CERAMIC CHIP | 0.033UF | 10.00% | 25V |
| C1289 | 1-163-989-11 | CERAMIC CHIP | 0.033UF | 10.00% | 25V |
| C1291 | 1-104-665-11 | ELECT | 100UF | 20.00% | 25V |
| C1292 | 1-115-339-11 | CERAMIC CHIP | 0.1UF | 10.00% | 50V |
| C1293 | 1-163-019-00 | CERAMIC CHIP | 0.0068UF | 10.00% | 50V |
| C1295 | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C1296 | 1-115-339-11 | CERAMIC CHIP | 0.1UF | 10.00% | 50V |
| C1297 | 1-137-374-11 | MYLAR | 0.047UF | 5.00% | 50V |
| C1298 | 1-126-960-11 | ELECT | 1UF | 20.00% | 50V |
| C1301 | 1-126-933-11 | ELECT (KV-DR29M39/M69/M89) | 100UF | 20.00% | 16V |
| C1302 | 1-115-339-11 | CERAMIC CHIP (KV-DR29M39/M69/M89) | 0.1UF | 10.00% | 50V |
| C1312 | 1-164-505-11 | CERAMIC CHIP | 2.2UF | | 16V |
| C1322 | 1-137-374-11 | MYLAR | 0.047UF | 5.00% | 50V |
| C1323 | 1-136-165-00 | FILM | 0.1UF | 5.00% | 50V |
| C2200 | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C2201 | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C2202 | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C2203 | 1-126-963-11 | ELECT | 4.7UF | 20.00% | 50V |
| C2204 | 1-164-505-11 | CERAMIC CHIP | 2.2UF | | 16V |
| C2205 | 1-164-505-11 | CERAMIC CHIP | 2.2UF | | 16V |
| C2206 | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C2207 | 1-164-505-11 | CERAMIC CHIP | 2.2UF | | 16V |
| C2208 | 1-164-505-11 | CERAMIC CHIP | 2.2UF | | 16V |
| C2209 | 1-126-968-11 | ELECT | 100UF | 20.00% | 50V |
| C2600 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C2601 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C2602 | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| C2603 | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C2605 | 1-104-665-11 | ELECT | 100UF | 20.00% | 10V |
| C2606 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C2607 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C2609 | 1-104-665-11 | ELECT | 100UF | 20.00% | 10V |
| C2612 | 1-104-665-11 | ELECT | 100UF | 20.00% | 25V |
| C2613 | 1-126-936-11 | ELECT | 3300UF | 20.00% | 16V |
| C2615 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C2616 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C3001 | 1-126-963-11 | ELECT | 4.7UF | 20.00% | 50V |
| C3002 | 1-109-982-11 | CERAMIC CHIP | 1UF | 10.00% | 10V |
| C3003 | 1-109-982-11 | CERAMIC CHIP | 1UF | 10.00% | 10V |
| C3005 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C3006 | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C3007 | 1-107-823-11 | CERAMIC CHIP | 0.47UF | 10.00% | 16V |
| C3008 | 1-107-823-11 | CERAMIC CHIP | 0.47UF | 10.00% | 16V |
| C3010 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C3012 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C3013 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C3015 | 1-107-725-11 | CERAMIC CHIP | 0.1UF | 10.00% | 16V |
| C3019 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C3020 | 1-109-982-11 | CERAMIC CHIP | 1UF | 10.00% | 10V |
| C3021 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C3033 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C3034 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C3037 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C3038 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C3039 | 1-216-295-91 | SHORT CHIP | 0 | | |
| C3040 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C3041 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C3042 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C3043 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C3044 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C3045 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C3046 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C3330 | 1-107-725-11 | CERAMIC CHIP (KV-DR29M39/M69/M89) | 0.1UF | 10.00% | 16V |
| C3331 | 1-126-933-11 | ELECT (KV-DR29M39/M69/M89) | 100UF | 20.00% | 16V |
| C3336 | 1-126-933-11 | ELECT (KV-DR29M39/M69/M89) | 100UF | 20.00% | 16V |
| C3338 | 1-163-005-91 | CERAMIC CHIP (KV-DR29M39/M69/M89) | 470PF | 10.00% | 50V |
| C3350 | 1-163-005-91 | CERAMIC CHIP (KV-DR29M39/M69/M89) | 470PF | 10.00% | 50V |
| C3351 | 1-163-005-91 | CERAMIC CHIP (KV-DR29M39/M69/M89) | 470PF | 10.00% | 50V |
| C3352 | 1-163-005-91 | CERAMIC CHIP (KV-DR29M39/M69/M89) | 470PF | 10.00% | 50V |
| C3353 | 1-126-933-11 | ELECT (KV-DR29M39/M69/M89) | 100UF | 20.00% | 16V |
| C3354 | 1-126-967-11 | ELECT (KV-DR29M39/M69/M89) | 47UF | 20.00% | 50V |
| C3355 | 1-126-967-11 | ELECT (KV-DR29M39/M69/M89) | 47UF | 20.00% | 50V |
| C4301 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4302 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4303 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4304 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4305 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4306 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4307 | 1-107-823-11 | CERAMIC CHIP | 0.47UF | 10.00% | 16V |
| C4308 | 1-164-492-11 | CERAMIC CHIP | 0.15UF | 10.00% | 16V |

A

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| C4309 | 1-125-838-11 | CERAMIC CHIP | 2.2UF | 10% | 6.3V |
| C4310 | 1-107-902-11 | ELECT | 1UF | 20.00% | 50V |
| C4311 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4312 | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C4313 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4314 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4315 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4316 | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C4317 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4318 | 1-107-823-11 | CERAMIC CHIP | 0.47UF | 10.00% | 16V |
| C4319 | 1-115-340-11 | CERAMIC CHIP | 0.22UF | 10.00% | 25V |
| C4321 | 1-107-823-11 | CERAMIC CHIP | 0.47UF | 10.00% | 16V |
| C4322 | 1-163-017-00 | CERAMIC CHIP | 0.0047UF | 10.00% | 50V |
| C4323 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4324 | 1-163-009-91 | CERAMIC CHIP | 0.001UF | 10.00% | 50V |
| C4325 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C4326 | 1-104-760-11 | CERAMIC CHIP | 0.047UF | 10.00% | 50V |
| C4327 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C4328 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C4330 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C4331 | 1-115-340-11 | CERAMIC CHIP | 0.22UF | 10.00% | 25V |
| C4333 | 1-107-823-11 | CERAMIC CHIP | 0.47UF | 10.00% | 16V |
| C4334 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C4335 | 1-115-185-11 | CERAMIC CHIP | 0.033UF | 10.00% | 50V |
| C4336 | 1-163-009-91 | CERAMIC CHIP | 0.001UF | 10.00% | 50V |
| C4339 | 1-136-244-11 | FILM | 0.1UF | 5.00% | 50V |
| C4341 | 1-130-489-00 | MYLAR | 0.033UF | 5.00% | 50V |
| C4342 | 1-164-344-11 | CERAMIC CHIP | 0.068UF | 10.00% | 25V |
| C4343 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4344 | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C4345 | 1-107-823-11 | CERAMIC CHIP | 0.47UF | 10.00% | 16V |
| C4346 | 1-107-823-11 | CERAMIC CHIP | 0.47UF | 10.00% | 16V |
| C4347 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4348 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C4349 | 1-127-760-11 | CERAMIC CHIP | 4.7UF | 10% | 6.3V |
| C4352 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4354 | 1-164-161-11 | CERAMIC CHIP | 0.0022UF | 10.00% | 50V |
| C4355 | 1-164-489-11 | CERAMIC CHIP | 0.22UF | 10.00% | 16V |
| C4356 | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C4357 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C4358 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4359 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C4360 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4361 | 1-164-161-11 | CERAMIC CHIP | 0.0022UF | 10.00% | 50V |
| C4362 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C4367 | 1-216-295-91 | SHORT CHIP | 0 | | |
| C4368 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C4369 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4370 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4371 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C4373 | 1-126-934-11 | ELECT | 220UF | 20.00% | 16V |
| C4374 | 1-126-934-11 | ELECT | 220UF | 20.00% | 16V |
| C4375 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C4376 | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C4383 | 1-126-965-91 | ELECT | 22UF | 20.00% | 50V |
| C4384 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C4390 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C4394 | 1-163-017-00 | CERAMIC CHIP | 0.0047UF | 10.00% | 50V |
| C4396 | 1-104-760-11 | CERAMIC CHIP | 0.047UF | 10.00% | 50V |
| C8300 | 1-107-823-11 | CERAMIC CHIP | 0.47UF | 10.00% | 16V |

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| C8301 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5.00% | 50V |
| C8302 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5.00% | 50V |
| C8303 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5.00% | 50V |
| C8304 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5.00% | 50V |
| C8305 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5.00% | 50V |
| C8306 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5.00% | 50V |
| C8307 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5.00% | 50V |
| C8308 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5.00% | 50V |
| C8309 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5.00% | 50V |
| C8310 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5.00% | 50V |
| C8311 | 1-164-346-11 | CERAMIC CHIP | 1UF | | 16V |
| C8312 | 1-164-346-11 | CERAMIC CHIP | 1UF | | 16V |
| C8313 | 1-164-346-11 | CERAMIC CHIP | 1UF | | 16V |
| C8314 | 1-164-346-11 | CERAMIC CHIP | 1UF | | 16V |
| C8315 | 1-164-346-11 | CERAMIC CHIP (KV-DR29M39/M69/M89) | 1UF | | 16V |
| C8316 | 1-164-346-11 | CERAMIC CHIP (KV-DR29M39/M69/M89) | 1UF | | 16V |
| C8317 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8318 | 1-164-346-11 | CERAMIC CHIP | 1UF | | 16V |
| C8319 | 1-164-346-11 | CERAMIC CHIP | 1UF | | 16V |
| C8320 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C8321 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C8322 | 1-164-346-11 | CERAMIC CHIP | 1UF | | 16V |
| C8323 | 1-164-346-11 | CERAMIC CHIP | 1UF | | 16V |
| C8324 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C8325 | 1-126-935-11 | ELECT | 470UF | 20.00% | 16V |
| C8326 | 1-107-823-11 | CERAMIC CHIP | 0.47UF | 10.00% | 16V |
| C8329 | 1-163-249-11 | CERAMIC CHIP | 82PF | 5.00% | 50V |
| C8330 | 1-164-346-11 | CERAMIC CHIP | 1UF | | 16V |
| C8331 | 1-164-346-11 | CERAMIC CHIP | 1UF | | 16V |
| C8334 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C8335 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8336 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C8337 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8338 | 1-164-346-11 | CERAMIC CHIP | 1UF | | 16V |
| C8339 | 1-164-346-11 | CERAMIC CHIP | 1UF | | 16V |
| C8340 | 1-107-823-11 | CERAMIC CHIP | 0.47UF | 10.00% | 16V |
| C8341 | 1-107-823-11 | CERAMIC CHIP | 0.47UF | 10.00% | 16V |
| C8342 | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C8343 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C8346 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8349 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C8354 | 1-107-823-11 | CERAMIC CHIP | 0.47UF | 10.00% | 16V |
| C8355 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C8356 | 1-164-346-11 | CERAMIC CHIP | 1UF | | 16V |
| C8357 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C8358 | 1-164-346-11 | CERAMIC CHIP | 1UF | | 16V |
| C8359 | 1-163-037-11 | CERAMIC CHIP | 0.022UF | 10.00% | 50V |
| C8360 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C8361 | 1-126-961-11 | ELECT | 2.2UF | 20.00% | 50V |
| C8366 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C8367 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C8368 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C8369 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C8370 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8371 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8372 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8373 | 1-163-227-11 | CERAMIC CHIP | 10PF | 0.50PF | 50V |
| C8375 | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C8376 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8377 | 1-164-346-11 | CERAMIC CHIP (KV-DR29M39/M69/M89) | 1UF | | 16V |

**A**

| REF NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| C8378 | 1-164-346-11 | CERAMIC CHIP 1UF 16V (KV-DR29M39/M69/M89) | |
| C8379 | 1-117-720-11 | CERAMIC CHIP 4.7UF 10V | |
| C8380 | 1-164-346-11 | CERAMIC CHIP 1UF 16V (KV-DR29M39/M69/M89) | |
| C8381 | 1-163-021-91 | CERAMIC CHIP 0.01UF 10.00% 50V | |
| C8382 | 1-164-004-11 | CERAMIC CHIP 0.1UF 10.00% 25V | |
| C8383 | 1-164-346-11 | CERAMIC CHIP 1UF 16V (KV-DR29M39/M69/M89) | |
| C8384 | 1-164-346-11 | CERAMIC CHIP 1UF 16V (KV-DR29M39/M69/M89) | |
| C8385 | 1-164-346-11 | CERAMIC CHIP 1UF 16V (KV-DR29M39/M69/M89) | |
| C8386 | 1-164-004-11 | CERAMIC CHIP 0.1UF 10.00% 25V | |
| C8390 | 1-126-963-11 | ELECT 4.7UF 20.00% 50V | |
| C8391 | 1-164-004-11 | CERAMIC CHIP 0.1UF 10.00% 25V | |
| C8392 | 1-164-004-11 | CERAMIC CHIP 0.1UF 10.00% 25V | |
| C8393 | 1-164-004-11 | CERAMIC CHIP 0.1UF 10.00% 25V | |
| C8394 | 1-216-295-91 | SHORT CHIP 0 | |
| C8411 | 1-117-720-11 | CERAMIC CHIP 4.7UF 10V | |
| C8413 | 1-117-720-11 | CERAMIC CHIP 4.7UF 10V | |
| C8430 | 1-117-720-11 | CERAMIC CHIP 4.7UF 10V | |
| C8441 | 1-164-346-11 | CERAMIC CHIP 1UF 16V | |
| C8446 | 1-126-947-11 | ELECT 47UF 20.00% 16V | |
| C8447 | 1-164-004-11 | CERAMIC CHIP 0.1UF 10.00% 25V | |
| C8448 | 1-164-690-91 | CERAMIC CHIP 0.0022UF 5.00% 50V | |
| C8450 | 1-107-823-11 | CERAMIC CHIP 0.47UF 10.00% 16V | |
| C8451 | 1-164-505-11 | CERAMIC CHIP 2.2UF 16V | |
| C8452 | 1-164-004-11 | CERAMIC CHIP 0.1UF 10.00% 25V | |
| C8453 | 1-164-004-11 | CERAMIC CHIP 0.1UF 10.00% 25V | |
| C8454 | 1-164-004-11 | CERAMIC CHIP 0.1UF 10.00% 25V | |
| C8455 | 1-126-947-11 | ELECT 47UF 20.00% 16V | |
| C8456 | 1-126-947-11 | ELECT 47UF 20.00% 16V | |
| C8457 | 1-126-947-11 | ELECT 47UF 20.00% 16V | |
| C8459 | 1-164-004-11 | CERAMIC CHIP 0.1UF 10.00% 25V | |
| C8462 | 1-164-004-11 | CERAMIC CHIP 0.1UF 10.00% 25V | |
| C8480 | 1-164-346-11 | CERAMIC CHIP 1UF 16V | |
| | | <CONNECTOR> | |
| CN1100 * | 1-785-608-11 | PIN, CONNECTOR 4P | |
| CN1108 | 1-793-494-11 | CONNECTOR, BOARD TO BOARD 40P | |
| CN1114 * | 1-564-507-11 | PLUG, CONNECTOR 4P | |
| CN1116 | 1-695-915-11 | TAB (CONTACT) | |
| CN1118 * | 1-774-813-11 | CONNECTOR, BOARD TO BOARD 7P (KV-DR29M39/M69/M89) | |
| CN1121 * | 1-774-813-11 | CONNECTOR, BOARD TO BOARD 7P | |
| CN1190 * | 1-764-333-11 | PLUG, CONNECTOR 10P | |
| CN1193 * | 1-764-333-11 | PLUG, CONNECTOR 10P | |
| CN4301 * | 1-564-515-11 | PLUG, CONNECTOR 12P | |
| CN8301 * | 1-764-333-11 | PLUG, CONNECTOR 10P | |
| CN8302 * | 1-564-511-11 | PLUG, CONNECTOR 8P | |
| CN8401 | 1-793-493-11 | CONNECTOR, BOARD TO BOARD 20P | |
| CN8402 | 1-793-493-11 | CONNECTOR, BOARD TO BOARD 20P (KV-DR29M39/M69/M89) | |
| | | <DIODE> | |
| D001 | 8-719-081-97 | MMDL914T1 | |
| D002 | 8-719-081-97 | MMDL914T1 | |
| D003 | 8-719-081-97 | MMDL914T1 | |
| D004 | 8-719-081-97 | MMDL914T1 | |
| D005 | 8-719-081-97 | MMDL914T1 | |
| D006 | 8-719-081-97 | MMDL914T1 | |
| D007 | 8-719-158-18 | RD5.6SB3 | |
| D013 | 8-719-158-18 | RD5.6SB3 | |
| D100 | 8-719-081-97 | MMDL914T1 | |
| D300 | 1-216-295-91 | SHORT CHIP 0 | |
| D301 | 8-719-081-97 | MMDL914T1 | |
| D302 | 8-719-081-97 | MMDL914T1 | |
| D303 | 8-719-081-97 | MMDL914T1 | |
| D317 | 8-719-081-97 | MMDL914T1 | |
| D1200 | 8-719-978-69 | DTZ-TT11-16B (KV-DR29M39/M69/M89) | |
| D1200 | 8-719-083-52 | UDZS-TE17-16B (KV-DR29M63) | |
| D1201 | 8-719-081-97 | MMDL914T1 | |
| D1202 | 8-719-081-97 | MMDL914T1 | |
| D1203 | 8-719-081-97 | MMDL914T1 | |
| D1204 | 8-719-081-97 | MMDL914T1 | |
| D1211 | 8-719-041-97 | MA113-(TX) | |
| D1214 | 8-719-041-97 | MA113-(TX) | |
| D1216 | 8-719-081-97 | MMDL914T1 | |
| D1217 | 8-719-081-97 | MMDL914T1 | |
| D1218 | 8-719-081-97 | MMDL914T1 | |
| D2200 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D2200 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D2201 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D2201 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D4301 | 8-719-081-97 | MMDL914T1 | |
| D4302 | 1-216-295-91 | SHORT CHIP 0 | |
| D4305 | 8-719-109-81 | RD4.7ESB2 | |
| D4308 | 8-719-081-97 | MMDL914T1 | |
| D4312 | 8-719-401-63 | MA3062M-TX | |
| D4313 | 8-719-050-38 | DIODE M1MA152WK-T1 | |
| D4314 | 8-719-050-38 | DIODE M1MA152WK-T1 | |
| D4315 | 8-719-069-60 | UDZSTE-179.1B | |
| D4317 | 8-719-081-97 | MMDL914T1 | |
| D4318 | 8-719-081-97 | MMDL914T1 | |
| D4319 | 8-719-081-97 | MMDL914T1 | |
| D4322 | 1-216-295-91 | SHORT CHIP 0 | |
| D4323 | 8-719-081-97 | MMDL914T1 | |
| D4324 | 8-719-081-97 | MMDL914T1 | |
| D8301 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8301 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8302 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8302 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8303 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8303 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8304 | 8-719-158-35 | RD9.1S-B KV-DR29M39/M69/M89) | |
| D8304 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8305 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8305 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8306 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8306 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8307 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8307 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8308 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8308 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8309 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8309 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8310 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8310 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8311 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8311 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |

A

| REF NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| D8312 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8312 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8313 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8313 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8314 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8314 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8315 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8315 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8316 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8316 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8320 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8320 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8321 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8321 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8322 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8322 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8323 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8323 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8324 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8324 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8325 | 8-719-158-35 | RD9.1S-B (KV-DR29M39/M69/M89) | |
| D8325 | 8-719-069-60 | UDZSTE-179.1B (KV-DR29M63) | |
| D8331 | 8-719-041-97 | MA113-(TX) | |
| | | <FERRITE BEAD> | |
| FB002 | 1-414-233-22 | FERRITE 0UH | |
| FB003 | 1-414-233-22 | FERRITE 0UH | |
| FB004 | 1-414-233-22 | FERRITE 0UH | |
| FB005 | 1-414-233-22 | FERRITE 0UH | |
| FB006 | 1-414-233-22 | FERRITE 0UH | |
| FB008 | 1-414-233-22 | FERRITE 0UH | |
| FB1300 | 1-216-295-91 | SHORT CHIP 0 (KV-DR29M39/M69/M89) | |
| FB4301 | 1-216-295-91 | SHORT CHIP 0 | |
| FB4302 | 1-216-295-91 | SHORT CHIP 0 | |
| FB4303 | 1-216-295-91 | SHORT CHIP 0 | |
| | | <FILTER> | |
| FL001 | 1-236-071-11 | ENCAPSULATED COMPONENT | |
| FL8301 | 1-236-071-11 | ENCAPSULATED COMPONENT | |
| FL8303 | 1-236-071-11 | ENCAPSULATED COMPONENT | |
| FL8304 | 1-236-071-11 | ENCAPSULATED COMPONENT | |
| FL8305 | 1-236-071-11 | ENCAPSULATED COMPONENT | |
| FL8311 | 1-236-071-11 | ENCAPSULATED COMPONENT | |
| FL8312 | 1-236-071-11 | ENCAPSULATED COMPONENT | |
| | | <IC> | |
| IC001 | 8-752-932-01 | IC CXP750096-046Q | |
| IC002 | 8-759-663-29 | MM1476AF(TP) | |
| IC003 | 8-759-641-86 | BR24C16F-E2 (KV-DR29M39/M69/M89) | |
| IC003 | 8-759-699-33 | M24C16-MN6T(A) (KV-DR29M63) | |
| IC100 | 8-759-042-02 | S-80743AL-A7-S | |
| IC1200 | 8-759-100-96 | UPC4558G2 | |
| IC1203 | 8-759-100-96 | UPC4558G2 | |
| IC1204 | 8-759-690-61 | AN7583Z | |
| IC1205 | 8-759-711-10 | NJU4066BM | |
| IC1207 | 6-702-145-01 | IC NJW1139GK1-TE2 | |
| IC2200 | 8-759-745-64 | NJM4560M | |
| IC2600 | 8-759-095-63 | PQ09RF2 | |
| IC2601 | 8-759-065-07 | PQ05RF2 | |
| IC2603 | 8-759-460-72 | BA033FP-E2 | |
| IC3001 | 8-752-093-84 | CXA2151Q | |
| IC3002 | 8-759-677-02 | BU4053BCF-E2 | |
| IC3003 | 8-759-548-56 | M52055FP | |
| IC4301 | 8-752-100-25 | CXA2150AQ | |
| IC4302 | 8-759-708-05 | NJM78L05A | |
| IC4304 | 8-759-135-80 | UPC358C | |
| IC8302 | 8-752-080-04 | CXA2069Q | |
| IC8306 | 8-752-099-05 | IC CXA2163AQ-T6 | |
| IC8309 | 8-759-337-26 | MM1115XFBE | |
| IC8310 | 8-759-542-15 | TDA9178 | |
| IC8312 | 8-759-485-79 | TC7SET08FU(TE85L | |
| | | <JACK> | |
| J8301 | 1-784-646-11 | TERMINAL, S | |
| J8302 | 1-778-387-11 | JACK BLOCK, PIN 12P | |
| | | <CHIP CONDUCTOR> | |
| JR001 | 1-216-295-91 | SHORT CHIP 0 | |
| JR102 | 1-216-295-91 | SHORT CHIP 0 | |
| JR107 | 1-216-295-91 | SHORT CHIP 0 | |
| JR109 | 1-216-295-91 | SHORT CHIP 0 (KV-DR29M89) | |
| JR1214 | 1-216-295-91 | SHORT CHIP 0 | |
| JR1219 | 1-216-295-91 | SHORT CHIP 0 | |
| JR1301 | 1-216-295-91 | SHORT CHIP 0 (KV-DR29M39/M69/M89) | |
| JR1303 | 1-216-295-91 | SHORT CHIP 0 (KV-DR29M39/M69/M89) | |
| JR4301 | 1-216-295-91 | SHORT CHIP 0 | |
| JR8301 | 1-216-295-91 | SHORT CHIP 0 | |
| JR8302 | 1-216-295-91 | SHORT CHIP 0 | |
| | | <COIL> | |
| L001 | 1-414-856-11 | INDUCTOR 10UH | |
| L002 | 1-414-856-11 | INDUCTOR 10UH | |
| L003 | 1-414-751-11 | INDUCTOR 1UH | |
| L005 | 1-414-856-11 | INDUCTOR 10UH | |
| L006 | 1-414-856-11 | INDUCTOR 10UH | |
| L101 | 1-414-856-11 | INDUCTOR 10UH | |
| L102 | 1-414-856-11 | INDUCTOR 10UH | |
| L103 | 1-414-856-11 | INDUCTOR 10UH | |
| L104 | 1-414-856-11 | INDUCTOR 10UH | |
| L105 | 1-414-856-11 | INDUCTOR 10UH | |
| L1200 | 1-414-856-11 | INDUCTOR 10UH | |
| L1201 | 1-414-856-11 | INDUCTOR 10UH | |
| L1300 | 1-414-856-11 | INDUCTOR 10UH (KV-DR29M39/M69/M89) | |
| L3001 | 1-469-555-21 | INDUCTOR 10UH | |
| L3002 | 1-412-029-11 | INDUCTOR 10UH | |
| L3003 | 1-412-029-11 | INDUCTOR 10UH | |
| L3302 | 1-414-856-11 | INDUCTOR 10UH (KV-DR29M39/M69/M89) | |
| L3303 | 1-414-856-11 | INDUCTOR 10UH (KV-DR29M39/M69/M89) | |
| L3304 | 1-414-856-11 | INDUCTOR 10UH (KV-DR29M39/M69/M89) | |
| L3305 | 1-414-856-11 | INDUCTOR 10UH (KV-DR29M39/M69/M89) | |
| L3306 | 1-414-856-11 | INDUCTOR 10UH (KV-DR29M39/M69/M89) | |
| L4301 | 1-412-029-11 | INDUCTOR 10UH | |

**A**

| REF NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| L4302 | 1-412-029-11 | INDUCTOR 10UH | |
| L4303 | 1-412-029-11 | INDUCTOR 10UH | |
| L4304 | 1-412-029-11 | INDUCTOR 10UH | |
| L4305 | 1-412-029-11 | INDUCTOR 10UH | |
| L4306 | 1-412-029-11 | INDUCTOR 10UH | |
| L4307 | 1-412-029-11 | INDUCTOR 10UH | |
| | | <IC LINK> | |
| PS1201 | 1-533-597-41 | LINK, IC | |
| | | <TRANSISTOR> | |
| Q001 | 8-729-010-05 | MSB709-RT1 | |
| Q002 | 8-729-010-25 | MSD601-RT1 | |
| Q003 | 8-729-010-25 | MSD601-RT1 | |
| Q004 | 8-729-010-25 | MSD601-RT1 | |
| Q101 | 8-729-010-05 | MSB709-RT1 | |
| Q301 | 8-729-010-05 | MSB709-RT1 | |
| Q302 | 8-729-010-05 | MSB709-RT1 | |
| Q313 | 8-729-010-25 | MSD601-RT1 | |
| Q1203 | 8-729-027-44 | DTC114TKA-T146 | |
| Q1204 | 8-729-224-62 | 2SK246-GR | |
| Q1205 | 8-729-230-49 | 2SC2712-YG (KV-DR29M39/M69/M89) | |
| Q1205 | 8-729-422-27 | 2SD601A-Q (KV-DR29M63) | |
| Q1206 | 8-729-230-49 | 2SC2712-YG (KV-DR29M39/M69/M89) | |
| Q1206 | 8-729-422-27 | 2SD601A-Q (KV-DR29M63) | |
| Q1207 | 8-729-010-05 | MSB709-RT1 | |
| Q1208 | 8-729-027-44 | DTC114TKA-T146 | |
| Q1209 | 8-729-027-44 | DTC114TKA-T146 | |
| Q1210 | 8-729-027-44 | DTC114TKA-T146 | |
| Q2200 | 8-729-027-56 | DTC143TKA-T146 | |
| Q2201 | 8-729-027-56 | DTC143TKA-T146 | |
| Q3001 | 8-729-102-07 | 2SC2223-F13 | |
| Q3002 | 8-729-102-07 | 2SC2223-F13 | |
| Q3003 | 8-729-102-07 | 2SC2223-F13 | |
| Q3014 | 8-729-010-05 | MSB709-RT1 | |
| Q3015 | 8-729-102-07 | 2SC2223-F13 | |
| Q3018 | 8-729-102-07 | 2SC2223-F13 | |
| Q3023 | 8-729-102-07 | 2SC2223-F13 | |
| Q3300 | 8-729-010-05 | MSB709-RT1 (KV-DR29M39/M69/M89) | |
| Q4301 | 8-729-010-25 | MSD601-RT1 | |
| Q4305 | 8-729-010-25 | MSD601-RT1 | |
| Q4306 | 8-729-216-22 | 2SA1162-G | |
| Q4307 | 8-729-010-25 | MSD601-RT1 | |
| Q4308 | 8-729-216-22 | 2SA1162-G | |
| Q4309 | 8-729-216-22 | 2SA1162-G | |
| Q4310 | 8-729-010-25 | MSD601-RT1 | |
| Q4314 | 8-729-421-19 | UN2213 | |
| Q4315 | 8-729-010-25 | MSD601-RT1 | |
| Q4316 | 8-729-216-22 | 2SA1162-G | |
| Q4317 | 8-729-216-22 | 2SA1162-G | |
| Q4318 | 8-729-216-22 | 2SA1162-G | |
| Q4319 | 8-729-216-22 | 2SA1162-G | |
| Q4320 | 8-729-010-25 | MSD601-RT1 | |
| Q4321 | 8-729-216-22 | 2SA1162-G | |
| Q4330 | 8-729-216-22 | 2SA1162-G | |
| Q4335 | 8-729-216-22 | 2SA1162-G | |
| Q4336 | 8-729-216-22 | 2SA1162-G | |
| Q4337 | 8-729-216-22 | 2SA1162-G | |
| Q4340 | 8-729-010-25 | MSD601-RT1 | |
| Q4341 | 8-729-010-25 | MSD601-RT1 | |
| Q8301 | 8-729-010-05 | MSB709-RT1 | |
| Q8302 | 8-729-010-25 | MSD601-RT1 | |
| Q8303 | 8-729-010-25 | MSD601-RT1 | |
| Q8304 | 8-729-010-25 | MSD601-RT1 | |
| Q8305 | 8-729-010-05 | MSB709-RT1 | |
| Q8306 | 8-729-010-25 | MSD601-RT1 | |
| Q8307 | 8-729-010-25 | MSD601-RT1 | |
| Q8310 | 8-729-010-25 | MSD601-RT1 | |
| Q8319 | 8-729-010-05 | MSB709-RT1 | |
| Q8320 | 8-729-010-05 | MSB709-RT1 | |
| Q8321 | 8-729-010-05 | MSB709-RT1 | |
| Q8326 | 8-729-010-25 | MSD601-RT1 | |
| Q8327 | 8-729-421-19 | UN2213 | |
| Q8328 | 8-729-421-19 | UN2213 | |
| Q8329 | 8-729-010-25 | MSD601-RT1 | |
| Q8330 | 8-729-010-25 | MSD601-RT1 | |
| Q8331 | 8-729-010-25 | MSD601-RT1 | |
| Q8332 | 8-729-010-25 | MSD601-RT1 | |
| Q8333 | 8-729-010-25 | MSD601-RT1 | |
| Q8334 | 8-729-010-25 | MSD601-RT1 | |
| Q8335 | 8-729-010-25 | MSD601-RT1 | |
| Q8336 | 8-729-010-25 | MSD601-RT1 | |
| Q8351 | 8-729-010-25 | MSD601-RT1 | |
| Q8352 | 8-729-010-05 | MSB709-RT1 | |
| Q8361 | 8-729-010-25 | MSD601-RT1 | |
| Q8362 | 8-729-010-25 | MSD601-RT1 | |
| Q8363 | 8-729-010-25 | MSD601-RT1 | |
| Q8364 | 8-729-010-05 | MSB709-RT1 | |
| Q8365 | 8-729-010-25 | MSD601-RT1 | |
| | | <RESISTOR> | |
| R001 | 1-216-033-00 | RES-CHIP 220 5% 1/10W | |
| R002 | 1-216-033-00 | RES-CHIP 220 5% 1/10W | |
| R004 | 1-216-295-91 | SHORT CHIP 0 | |
| R005 | 1-216-295-91 | SHORT CHIP 0 | |
| R006 | 1-216-029-00 | RES-CHIP 150 5% 1/10W | |
| R010 | 1-216-061-91 | RES-CHIP 3.3K 5% 1/10W | |
| R011 | 1-216-065-91 | RES-CHIP 4.7K 5% 1/10W | |
| R012 | 1-216-061-91 | RES-CHIP 3.3K 5% 1/10W | |
| R013 | 1-216-065-91 | RES-CHIP 4.7K 5% 1/10W | |
| R014 | 1-216-025-11 | RES-CHIP 100 5% 1/10W | |
| R015 | 1-216-025-11 | RES-CHIP 100 5% 1/10W | |
| R016 | 1-216-057-00 | RES-CHIP 2.2K 5% 1/10W | |
| R017 | 1-216-049-11 | RES-CHIP 1K 5% 1/10W | |
| R018 | 1-216-045-00 | RES-CHIP 680 5% 1/10W | |
| R019 | 1-216-049-11 | RES-CHIP 1K 5% 1/10W | |
| R020 | 1-216-057-00 | RES-CHIP 2.2K 5% 1/10W | |
| R022 | 1-216-033-00 | RES-CHIP 220 5% 1/10W | |
| R023 | 1-216-025-11 | RES-CHIP 100 5% 1/10W | |
| R024 | 1-216-063-91 | RES-CHIP 3.9K 5% 1/10W | |
| R025 | 1-216-049-11 | RES-CHIP 1K 5% 1/10W | |
| R026 | 1-216-049-11 | RES-CHIP 1K 5% 1/10W | |
| R027 | 1-216-049-11 | RES-CHIP 1K 5% 1/10W | |
| R028 | 1-216-049-11 | RES-CHIP 1K 5% 1/10W | |
| R029 | 1-216-049-11 | RES-CHIP 1K 5% 1/10W | |
| R031 | 1-216-033-00 | RES-CHIP 220 5% 1/10W | |
| R032 | 1-216-049-11 | RES-CHIP 1K 5% 1/10W | |
| R033 | 1-216-033-00 | RES-CHIP 220 5% 1/10W | |
| R035 | 1-216-057-00 | RES-CHIP 2.2K 5% 1/10W | |

A

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| R036 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R037 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R038 | 1-216-045-00 | RES-CHIP | 680 | 5% | 1/10W |
| R039 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R040 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R041 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R042 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R043 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R044 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R045 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R046 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R047 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R048 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R051 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R052 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R053 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R054 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R057 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R059 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R061 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R065 | 1-216-045-00 | RES-CHIP | 680 | 5% | 1/10W |
| R067 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R068 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R070 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R071 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R072 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R073 | 1-216-055-00 | RES-CHIP | 1.8K | 5% | 1/10W |
| R074 | 1-216-055-00 | RES-CHIP | 1.8K | 5% | 1/10W |
| R075 | 1-216-055-00 | RES-CHIP | 1.8K | 5% | 1/10W |
| R076 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R077 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R078 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R079 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R080 | 1-216-063-91 | RES-CHIP | 3.9K | 5% | 1/10W |
| R081 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R082 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R083 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R084 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R085 | 1-208-798-11 | METAL CHIP | 4.7K | 0.5% | 1/10W |
| R086 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R087 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R101 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R102 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R105 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R109 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R110 | 1-216-043-91 | RES-CHIP | 560 | 5% | 1/10W |
| R111 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R112 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R123 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R124 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R301 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R302 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R303 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R304 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R1200 | 1-216-060-00 | RES-CHIP | 3K | 5% | 1/10W |
| R1201 | 1-216-061-91 | RES-CHIP | 3.3K | 5% | 1/10W |
| R1202 | 1-216-060-00 | RES-CHIP | 3K | 5% | 1/10W |
| R1203 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R1204 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R1205 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R1206 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R1207 | 1-216-061-91 | RES-CHIP | 3.3K | 5% | 1/10W |
| R1217 | 1-216-077-91 | RES-CHIP | 15K | 5% | 1/10W |
| R1218 | 1-216-077-91 | RES-CHIP | 15K | 5% | 1/10W |
| R1219 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R1220 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R1221 | 1-216-079-00 | RES-CHIP | 18K | 5% | 1/10W |
| R1222 | 1-216-079-00 | RES-CHIP | 18K | 5% | 1/10W |
| R1223 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R1224 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R1225 | 1-216-071-00 | RES-CHIP | 8.2K | 5% | 1/10W |
| R1227 | 1-216-071-00 | RES-CHIP | 8.2K | 5% | 1/10W |
| R1228 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W |
| R1229 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W |
| R1230 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W |
| R1231 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R1232 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R1233 | 1-216-093-91 | RES-CHIP | 68K | 5% | 1/10W |
| R1234 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R1235 | 1-216-093-91 | RES-CHIP | 68K | 5% | 1/10W |
| R1236 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R1237 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R1238 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R1239 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R1240 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R1241 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R1242 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R1243 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R1244 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R1245 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R1246 | 1-216-061-91 | RES-CHIP | 3.3K | 5% | 1/10W |
| R1247 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R1248 | 1-216-069-00 | RES-CHIP | 6.8K | 5% | 1/10W |
| R1249 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R1250 | 1-216-069-00 | RES-CHIP | 6.8K | 5% | 1/10W |
| R1251 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R1252 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R1253 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R1254 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R1256 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R1257 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R1258 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R1259 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R1260 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R1262 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W |
| R1263 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R1265 | 1-249-397-11 | CARBON | 22 | 5% | 1/4W |
| R1268 | 1-249-397-11 | CARBON | 22 | 5% | 1/4W |
| R1269 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R1270 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R1271 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R1272 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R1273 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R1274 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R1275 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R1276 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R2200 | 1-216-021-00 | RES-CHIP | 68 | 5% | 1/10W |
| R2201 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R2202 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R2203 | 1-216-021-00 | RES-CHIP | 68 | 5% | 1/10W |

**A**

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| R2204 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R2205 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R2206 | 1-216-117-00 | RES-CHIP | 680K | 5% | 1/10W |
| R2207 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R2208 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R2209 | 1-216-117-00 | RES-CHIP | 680K | 5% | 1/10W |
| R2210 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R2211 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R2212 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R2213 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R2214 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R2215 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R2602 | 1-215-882-00 | METAL OXIDE | 22 | 5% | 2W |
| R2603 | 1-215-882-00 | METAL OXIDE | 22 | 5% | 2W |
| R3001 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R3002 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R3003 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R3004 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R3005 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R3006 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3007 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R3008 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3009 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R3010 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R3011 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R3012 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R3013 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R3014 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R3015 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R3016 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R3017 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3018 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R3019 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R3020 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R3021 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3022 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3023 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R3024 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R3027 | 1-216-129-00 | RES-CHIP | 2.2M | 5% | 1/10W |
| R3031 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R3033 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R3034 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R3035 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R3036 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R3044 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R3047 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R3048 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R3053 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R3076 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R3300 | 1-216-043-91 | RES-CHIP (KV-DR29M39/M69/M89) | 560 | 5% | 1/10W |
| R3304 | 1-216-041-00 | RES-CHIP (KV-DR29M39/M69/M89) | 470 | 5% | 1/10W |
| R3320 | 1-216-073-91 | RES-CHIP (KV-DR29M39/M69/M89) | 10K | 5% | 1/10W |
| R3323 | 1-216-025-11 | RES-CHIP (KV-DR29M39/M69/M89) | 100 | 5% | 1/10W |
| R3334 | 1-216-025-11 | RES-CHIP (KV-DR29M39/M69/M89) | 100 | 5% | 1/10W |
| R3362 | 1-216-025-11 | RES-CHIP (KV-DR29M39/M69/M89) | 100 | 5% | 1/10W |
| R3374 | 1-216-295-91 | SHORT CHIP | 0 (KV-DR29M39/M69/M89) | | |
| R4301 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4302 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4303 | 1-216-133-91 | RES-CHIP | 3.3M | 5% | 1/10W |
| R4304 | 1-208-798-11 | METAL CHIP | 4.7K | 0.5% | 1/10W |
| R4305 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4306 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4307 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4308 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4309 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R4310 | 1-216-077-91 | RES-CHIP | 15K | 5% | 1/10W |
| R4311 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R4314 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R4315 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4316 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R4317 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4318 | 1-216-121-11 | RES-CHIP | 1M | 5% | 1/10W |
| R4319 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R4320 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4321 | 1-216-059-00 | RES-CHIP | 2.7K | 5% | 1/10W |
| R4322 | 1-216-061-91 | RES-CHIP | 3.3K | 5% | 1/10W |
| R4323 | 1-216-085-91 | RES-CHIP | 33K | 5% | 1/10W |
| R4324 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R4325 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4326 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4327 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4328 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4329 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4330 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4332 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R4339 | 1-208-822-11 | METAL CHIP | 47K | 0.5% | 1/10W |
| R4343 | 1-218-760-11 | METAL CHIP | 220K | 0.5% | 1/10W |
| R4344 | 1-216-129-00 | RES-CHIP | 2.2M | 5% | 1/10W |
| R4345 | 1-208-796-11 | METAL CHIP | 3.9K | 0.5% | 1/10W |
| R4346 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R4347 | 1-208-822-11 | METAL CHIP | 47K | 0.5% | 1/10W |
| R4349 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R4350 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R4351 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R4352 | 1-208-798-11 | METAL CHIP | 4.7K | 0.5% | 1/10W |
| R4353 | 1-208-804-11 | METAL CHIP | 8.2K | 0.5% | 1/10W |
| R4354 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R4355 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R4356 | 1-208-790-11 | METAL CHIP | 2.2K | 0.5% | 1/10W |
| R4357 | 1-216-045-00 | RES-CHIP | 680 | 5% | 1/10W |
| R4359 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R4361 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R4362 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4363 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R4365 | 1-216-085-91 | RES-CHIP | 33K | 5% | 1/10W |
| R4375 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R4376 | 1-208-814-91 | METAL CHIP | 22K | 0.5% | 1/10W |
| R4379 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4380 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4381 | 1-208-774-11 | METAL CHIP | 470 | 0.5% | 1/10W |
| R4382 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R4383 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4384 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R4385 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R4386 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |

A

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| R4387 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R4388 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R4391 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R4392 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R4393 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R4394 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4395 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R4396 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R4397 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R4398 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R4399 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R4400 | 1-208-798-11 | METAL CHIP | 4.7K | 0.5% | 1/10W |
| R4401 | 1-208-789-11 | METAL CHIP | 2K | 0.5% | 1/10W |
| R4402 | 1-208-790-11 | METAL CHIP | 2.2K | 0.5% | 1/10W |
| R4403 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4404 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R4405 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4410 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R4418 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R4419 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R4420 | 1-216-069-00 | RES-CHIP | 6.8K | 5% | 1/10W |
| R4421 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4425 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R4426 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R4429 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R4431 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R4433 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R4442 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R4443 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R4444 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R4445 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R4450 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4452 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R4453 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R4454 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R4472 | 1-208-798-11 | METAL CHIP | 4.7K | 0.5% | 1/10W |
| R4473 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R4481 | 1-216-133-91 | RES-CHIP | 3.3M | 5% | 1/10W |
| R4482 | 1-164-161-11 | CERAMIC CHIP | 0.0022UF | 10.00% | 50V |
| R4483 | 1-216-093-91 | RES-CHIP | 68K | 5% | 1/10W |
| R4484 | 1-208-846-11 | METAL CHIP | 470K | 0.5% | 1/10W |
| R4487 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R4488 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R4489 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R4490 | 1-208-828-11 | METAL CHIP | 82K | 0.5% | 1/10W |
| R4491 | 1-208-808-11 | METAL CHIP | 12K | 0.5% | 1/10W |
| R4492 | 1-216-115-00 | RES-CHIP | 560K | 5% | 1/10W |
| R8301 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8302 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8303 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R8304 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R8305 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R8306 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R8307 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R8308 | 1-216-105-91 | RES-CHIP | 220K | 5% | 1/10W |
| R8309 | 1-216-105-91 | RES-CHIP | 220K | 5% | 1/10W |
| R8310 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R8311 | 1-216-105-91 | RES-CHIP | 220K | 5% | 1/10W |
| R8312 | 1-216-105-91 | RES-CHIP | 220K | 5% | 1/10W |
| R8313 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R8314 | 1-216-105-91 | RES-CHIP | 220K | 5% | 1/10W |
| R8315 | 1-216-105-91 | RES-CHIP | 220K | 5% | 1/10W |

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| R8316 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R8317 | 1-216-067-00 | RES-CHIP (KV-DR29M39/M69/M89) | 5.6K | 5% | 1/10W |
| R8318 | 1-216-067-00 | RES-CHIP (KV-DR29M39/M69/M89) | 5.6K | 5% | 1/10W |
| R8319 | 1-216-041-00 | RES-CHIP (KV-DR29M39/M69/M89) | 470 | 5% | 1/10W |
| R8320 | 1-216-037-00 | RES-CHIP (KV-DR29M39/M69/M89) | 330 | 5% | 1/10W |
| R8322 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R8323 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R8324 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R8325 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R8326 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R8327 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R8328 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R8329 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R8330 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R8334 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R8336 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R8337 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R8338 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R8339 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R8340 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R8341 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R8342 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R8343 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R8344 | 1-216-022-00 | RES-CHIP | 75 | 5% | 1/10W |
| R8345 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R8346 | 1-216-031-00 | RES-CHIP | 180 | 5% | 1/10W |
| R8347 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8348 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R8349 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8350 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8351 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R8352 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R8353 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R8354 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R8357 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R8358 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R8361 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R8362 | 1-216-037-00 | RES-CHIP (KV-DR29M39/M69/M89) | 330 | 5% | 1/10W |
| R8363 | 1-216-642-11 | METAL CHIP | 430 | 0.5% | 1/10W |
| R8364 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8365 | 1-216-067-00 | RES-CHIP | 5.6K | 5% | 1/10W |
| R8366 | 1-216-067-00 | RES-CHIP | 5.6K | 5% | 1/10W |
| R8367 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8368 | 1-216-037-00 | RES-CHIP (KV-DR29M39/M69/M89) | 330 | 5% | 1/10W |
| R8369 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8370 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8372 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R8373 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R8374 | 1-216-039-00 | RES-CHIP | 390 | 5% | 1/10W |
| R8375 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8376 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8377 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8378 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R8379 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R8380 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8381 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |

# A B3

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| R8382 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R8383 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R8384 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8388 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R8390 | 1-216-037-00 | RES-CHIP | 330 | 5% | 1/10W |
| R8391 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8395 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R8396 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R8399 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8400 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8411 | 1-216-083-00 | RES-CHIP | 27K | 5% | 1/10W |
| R8414 | 1-208-796-11 | METAL CHIP | 3.9K | 0.5% | 1/10W |
| R8415 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8417 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8418 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8419 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R8420 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R8435 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R8441 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8442 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8446 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8447 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8448 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8449 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8450 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R8451 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R8452 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R8453 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R8454 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R8455 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R8464 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8465 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8466 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8467 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8468 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8469 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8470 | 1-216-069-00 | RES-CHIP | 6.8K | 5% | 1/10W |
| R8471 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8478 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R8479 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R8480 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R8481 | 1-216-095-00 | RES-CHIP | 82K | 5% | 1/10W |
| R8482 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R8484 | 1-216-045-00 | RES-CHIP | 680 | 5% | 1/10W |
| R8485 | 1-216-037-00 | RES-CHIP | 330 | 5% | 1/10W |
| R8486 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8487 | 1-216-045-00 | RES-CHIP | 680 | 5% | 1/10W |
| R8488 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8489 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8490 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8491 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8492 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8493 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R8494 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8495 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R8496 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8497 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8498 | 1-216-043-91 | RES-CHIP | 560 | 5% | 1/10W |
| R8499 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R8500 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| R8501 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R8502 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8507 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8508 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8512 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R8536 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8538 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8540 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8541 | 1-216-039-00 | RES-CHIP | 390 | 5% | 1/10W |
| R8576 | 1-216-013-00 | RES-CHIP | 33 | 5% | 1/10W |
| R8577 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R8578 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R8579 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R8582 | 1-208-291-11 | RES-CHIP | 4.7M | 5% | 1/10W |
| R8583 | 1-208-291-11 | RES-CHIP | 4.7M | 5% | 1/10W |
| R8584 | 1-208-291-11 | RES-CHIP | 4.7M | 5% | 1/10W |
| R8587 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R8588 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8589 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8590 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |

<TUNER>

| | | |
|---|---|---|
| TU101 | 8-598-452-20 | TUNER, FSS BTF-WG442 (KV-DR29M39/M69) |
| TU101 | 8-598-451-00 | TUNER, FSS BTF-WG441 (KV-DR29M63) |
| TU101 | 8-598-450-10 | TUNER, FSS BTF-LG434 (KV-DR29M89) |
| TU3301 | 8-598-450-10 | TUNER, FSS BTF-LG434 (KV-DR29M39/M69/M89) |

<CRYSTAL>

| | | |
|---|---|---|
| X001 | 1-567-928-11 | VIBLATOR, CERAMIC |
| X3001 | 1-781-922-21 | VIBRATOR, CERAMIC |
| X4301 | 1-760-895-21 | VIBRATOR, CERAMIC |
| X8301 | 1-781-612-11 | VIBRATOR, CRYSTAL |

********** *

| | | |
|---|---|---|
| * | A-1300-290-A | B3 BOARD COMPLETE (KV-DR29M39/DR29M69/DR29M89) |
| * | A-1300-385-A | B3 BOARD COMPLETE (KV-DR29M63) |

**********

<CAPACITOR>

| | | | | | |
|---|---|---|---|---|---|
| C501 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C502 | 1-124-779-00 | ELECT CHIP | 10UF | 20.00% | 16V |
| C503 | 1-124-779-00 | ELECT CHIP | 10UF | 20.00% | 16V |
| C505 | 1-124-779-00 | ELECT CHIP | 10UF | 20.00% | 16V |
| C507 | 1-124-779-00 | ELECT CHIP | 10UF | 20.00% | 16V |
| C512 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C539 | 1-126-204-11 | ELECT CHIP | 47UF | 20.00% | 16V |
| C540 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C543 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C545 | 1-126-396-11 | ELECT CHIP | 47UF | 20.00% | 16V |
| C546 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C548 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C549 | 1-126-204-11 | ELECT CHIP | 47UF | 20.00% | 16V |
| C550 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C551 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |

**B3**

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| C554 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C555 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C556 | 1-126-396-11 | ELECT CHIP | 47UF | 20.00% | 16V |
| C557 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C559 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C560 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C601 | 1-126-394-11 | ELECT CHIP | 10UF | 20.00% | 16V |
| C602 | 1-126-394-11 | ELECT CHIP | 10UF | 20.00% | 16V |
| C603 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C604 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C605 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C606 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C607 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C608 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C609 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C610 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C611 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C612 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C613 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C614 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C615 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C616 | 1-126-396-11 | ELECT CHIP | 47UF | 20.00% | 16V |
| C617 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C618 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C619 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C620 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C621 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C622 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C623 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C624 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C625 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C626 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C627 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C628 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C629 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C630 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C631 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C632 | 1-126-206-11 | ELECT CHIP | 100UF | 20.00% | 6.3V |
| C633 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C634 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C635 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C636 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C637 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C638 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C639 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C640 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C642 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C643 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C644 | 1-126-398-11 | ELECT CHIP | 4.7UF | 20.00% | 35V |
| C645 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C652 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C653 | 1-126-206-11 | ELECT CHIP | 100UF | 20.00% | 6.3V |
| C801 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C802 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C803 | 1-126-206-11 | ELECT CHIP | 100UF | 20.00% | 6.3V |
| C804 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C805 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C806 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C807 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C808 | 1-109-982-11 | CERAMIC CHIP | 1UF | 10.00% | 10V |

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| C809 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C810 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C811 | 1-163-023-00 | CERAMIC CHIP | 0.015UF | 10.00% | 50V |
| C812 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C813 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C814 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C815 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C816 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C817 | 1-109-982-11 | CERAMIC CHIP | 1UF | 10.00% | 10V |
| C818 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C819 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C820 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C821 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C822 | 1-109-982-11 | CERAMIC CHIP | 1UF | 10.00% | 10V |
| C823 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C824 | 1-109-982-11 | CERAMIC CHIP | 1UF | 10.00% | 10V |
| C825 | 1-126-204-11 | ELECT CHIP | 47UF | 20.00% | 16V |
| C826 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C831 | 1-126-204-11 | ELECT CHIP | 47UF | 20.00% | 16V |
| C833 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C834 | 1-126-204-11 | ELECT CHIP | 47UF | 20.00% | 16V |

<CONNECTOR>

| | | | |
|---|---|---|---|
| CN502 | 1-793-497-11 | CONNECTOR, BOARD TO BOARD 40P | |

<DIODE>

| | | | |
|---|---|---|---|
| D501 | 8-719-082-02 | DIODE MM3Z3V9T1 | |
| D601 | 8-719-081-97 | MMDL914T1 | |
| D800 | 8-719-081-97 | MMDL914T1 | |

<FERRITE BEAD>

| | | | |
|---|---|---|---|
| FB501 | 1-414-813-11 | FERRITE | 0UH |
| FB502 | 1-414-813-11 | FERRITE | 0UH |
| FB503 | 1-414-813-11 | FERRITE | 0UH |
| FB504 | 1-414-813-11 | FERRITE | 0UH |
| FB601 | 1-414-553-11 | FERRITE | 0UH |

<FILTER>

| | | | |
|---|---|---|---|
| FL501 | 1-233-877-11 | FILTER, LOW PASS | |
| FL502 | 1-233-504-21 | FILTER, LOW PASS | |
| FL503 | 1-233-504-21 | FILTER, LOW PASS | |
| FL504 | 1-234-177-21 | FERRITE | 0UH |
| FL505 | 1-234-177-21 | FERRITE | 0UH |
| FL506 | 1-234-177-21 | FERRITE | 0UH |
| FL601 | 1-234-177-21 | FERRITE | 0UH |
| FL602 | 1-234-177-21 | FERRITE | 0UH |
| FL603 | 1-234-177-21 | FERRITE | 0UH |
| FL801 | 1-234-177-21 | FERRITE | 0UH |
| FL901 | 1-234-113-21 | FILTER, LOW PASS | |
| FL902 | 1-234-112-21 | FILTER, LOW PASS | |
| FL903 | 1-234-112-21 | FILTER, LOW PASS | |

<IC>

| | | |
|---|---|---|
| IC504 | 8-759-669-78 | TLC2933IPWR-12 |
| IC505 | 8-759-547-54 | TC7SET00FU(TE85 |
| IC506 | 8-759-547-54 | TC7SET00FU(TE85 |

# B3

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| IC601 | 8-752-409-78 | IC CXD2095AQ | | | |
| IC602 | 8-759-836-37 | IC MT48LC1M16A1TG-6S | | | |
| IC603 | 8-759-669-75 | TLC2932IPWR | | | |
| IC604 | 8-752-072-94 | CXA1875AM-T4 | | | |
| IC605 | 8-749-015-18 | PQ07VZ012ZP | | | |
| IC801 | 6-700-188-01 | IC IS41C16256-35K | | | |
| IC802 | 6-701-892-01 | IC TC90A90F(BH,DRY) | | | |
| IC803 | 8-749-015-18 | PQ07VZ012ZP | | | |
| | | <CHIP CONDUCTOR> | | | |
| JR601 | 1-216-295-91 | SHORT CHIP | 0 | | |
| JR801 | 1-216-295-91 | SHORT CHIP | 0 | | |
| | | <COIL> | | | |
| L503 | 1-412-026-11 | INDUCTOR | 1UH | | |
| L505 | 1-412-029-11 | INDUCTOR | 10UH | | |
| L506 | 1-412-026-11 | INDUCTOR | 1UH | | |
| L508 | 1-412-029-11 | INDUCTOR | 10UH | | |
| L509 | 1-412-029-11 | INDUCTOR | 10UH | | |
| L512 | 1-412-026-11 | INDUCTOR | 1UH | | |
| L604 | 1-412-029-11 | INDUCTOR | 10UH | | |
| L605 | 1-412-029-11 | INDUCTOR | 10UH | | |
| L801 | 1-412-026-11 | INDUCTOR | 1UH | | |
| L802 | 1-412-026-11 | INDUCTOR | 1UH | | |
| L804 | 1-412-026-11 | INDUCTOR | 1UH | | |
| L805 | 1-412-026-11 | INDUCTOR | 1UH | | |
| L806 | 1-412-026-11 | INDUCTOR | 1UH | | |
| L807 | 1-412-026-11 | INDUCTOR | 1UH | | |
| | | <TRANSISTOR> | | | |
| Q501 | 8-729-010-05 | MSB709-RT1 | | | |
| Q502 | 8-729-120-28 | 2SC1623-L5L6 | | | |
| Q503 | 8-729-120-28 | 2SC1623-L5L6 | | | |
| Q504 | 8-729-421-19 | UN2213 | | | |
| Q516 | 8-729-010-25 | MSD601-RT1 | | | |
| Q517 | 8-729-010-25 | MSD601-RT1 | | | |
| Q518 | 8-729-010-05 | MSB709-RT1 | | | |
| Q521 | 8-729-010-25 | MSD601-RT1 | | | |
| Q522 | 8-729-010-25 | MSD601-RT1 | | | |
| Q523 | 8-729-010-25 | MSD601-RT1 | | | |
| Q602 | 8-729-010-25 | MSD601-RT1 | | | |
| Q605 | 8-729-010-25 | MSD601-RT1 | | | |
| Q606 | 8-729-010-25 | MSD601-RT1 | | | |
| Q607 | 8-729-900-53 | DTC114EK | | | |
| Q901 | 8-729-010-05 | MSB709-RT1 | | | |
| Q902 | 8-729-010-05 | MSB709-RT1 | | | |
| Q903 | 8-729-010-05 | MSB709-RT1 | | | |
| Q907 | 8-729-010-05 | MSB709-RT1 | | | |
| Q908 | 8-729-010-05 | MSB709-RT1 | | | |
| Q909 | 8-729-010-05 | MSB709-RT1 | | | |
| | | <RESISTOR> | | | |
| R501 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R502 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R503 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R504 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R505 | 1-216-295-91 | SHORT CHIP | 0 | | |

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| R506 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R507 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R513 | 1-216-639-11 | METAL CHIP | 330 | 0.5% | 1/10W |
| R514 | 1-216-639-11 | METAL CHIP | 330 | 0.5% | 1/10W |
| R515 | 1-216-639-11 | METAL CHIP | 330 | 0.5% | 1/10W |
| R517 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R518 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R520 | 1-208-776-11 | METAL CHIP | 560 | 0.5% | 1/10W |
| R521 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R523 | 1-208-776-11 | METAL CHIP | 560 | 0.5% | 1/10W |
| R524 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R526 | 1-208-776-11 | METAL CHIP | 560 | 0.5% | 1/10W |
| R528 | 1-216-037-00 | RES-CHIP | 330 | 5% | 1/10W |
| R529 | 1-208-800-11 | METAL CHIP | 5.6K | 0.5% | 1/10W |
| R530 | 1-208-800-11 | METAL CHIP | 5.6K | 0.5% | 1/10W |
| R531 | 1-216-031-00 | RES-CHIP | 180 | 5% | 1/10W |
| R532 | 1-208-800-11 | METAL CHIP | 5.6K | 0.5% | 1/10W |
| R533 | 1-216-031-00 | RES-CHIP | 180 | 5% | 1/10W |
| R537 | 1-216-643-11 | METAL CHIP | 470 | 0.5% | 1/10W |
| R538 | 1-216-659-11 | METAL CHIP | 2.2K | 0.5% | 1/10W |
| R539 | 1-216-659-11 | METAL CHIP | 2.2K | 0.5% | 1/10W |
| R561 | 1-216-043-91 | RES-CHIP | 560 | 5% | 1/10W |
| R562 | 1-216-043-91 | RES-CHIP | 560 | 5% | 1/10W |
| R563 | 1-216-043-91 | RES-CHIP | 560 | 5% | 1/10W |
| R564 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R598 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R600 | 1-216-061-91 | RES-CHIP | 3.3K | 5% | 1/10W |
| R604 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R605 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R608 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R609 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R610 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R611 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R612 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R613 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R614 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R615 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R616 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R617 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R619 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R622 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R623 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R624 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R626 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R628 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R629 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R631 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R634 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R635 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R638 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R639 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R640 | 1-216-009-91 | RES-CHIP | 22 | 5% | 1/10W |
| R642 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R643 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R645 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R647 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R648 | 1-208-782-11 | METAL CHIP | 1K | 0.5% | 1/10W |
| R650 | 1-211-960-11 | METAL CHIP | 22 | 0.5% | 1/10W |
| R651 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R653 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |

**B3**

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| R654 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R655 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R657 | 1-216-009-91 | RES-CHIP | 22 | 5% | 1/10W |
| R658 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R660 | 1-208-774-11 | METAL CHIP | 470 | 0.5% | 1/10W |
| R664 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R665 | 1-216-035-00 | RES-CHIP | 270 | 5% | 1/10W |
| R666 | 1-216-646-11 | METAL CHIP | 620 | 0.5% | 1/10W |
| R667 | 1-208-794-11 | METAL CHIP | 3.3K | 0.5% | 1/10W |
| R668 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R671 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R672 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R673 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R674 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R675 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R676 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R677 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R678 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R679 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R680 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R681 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R682 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R683 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R684 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R685 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R686 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R690 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R691 | 1-216-061-91 | RES-CHIP | 3.3K | 5% | 1/10W |
| R692 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R693 | 1-216-009-91 | RES-CHIP | 22 | 5% | 1/10W |
| R694 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R695 | 1-216-047-91 | RES-CHIP | 820 | 5% | 1/10W |
| R696 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R697 | 1-216-117-00 | RES-CHIP | 680K | 5% | 1/10W |
| R698 | 1-216-117-00 | RES-CHIP | 680K | 5% | 1/10W |
| R699 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R701 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R702 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R708 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R709 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R710 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R711 | 1-216-061-91 | RES-CHIP | 3.3K | 5% | 1/10W |
| R712 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R713 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R714 | 1-216-061-91 | RES-CHIP | 3.3K | 5% | 1/10W |
| R715 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R716 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R717 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R718 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R801 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R802 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R804 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R806 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R807 | 1-216-061-91 | RES-CHIP | 3.3K | 5% | 1/10W |
| R808 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R810 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R812 | 1-216-125-00 | RES-CHIP | 1.5M | 5% | 1/10W |
| R813 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R814 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R815 | 1-216-061-91 | RES-CHIP | 3.3K | 5% | 1/10W |

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| R817 | 1-208-788-11 | METAL CHIP | 1.8K | 0.5% | 1/10W |
| R818 | 1-208-782-11 | METAL CHIP | 1K | 0.5% | 1/10W |
| R820 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R822 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R825 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R830 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R832 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R834 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R907 | 1-208-790-11 | METAL CHIP | 2.2K | 0.5% | 1/10W |
| R908 | 1-208-790-11 | METAL CHIP | 2.2K | 0.5% | 1/10W |
| R909 | 1-208-790-11 | METAL CHIP | 2.2K | 0.5% | 1/10W |
| R910 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R911 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R912 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R942 | 1-216-037-00 | RES-CHIP | 330 | 5% | 1/10W |
| R943 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R957 | 1-216-635-11 | METAL CHIP | 220 | 0.5% | 1/10W |
| R958 | 1-216-635-11 | METAL CHIP | 220 | 0.5% | 1/10W |
| R959 | 1-216-635-11 | METAL CHIP | 220 | 0.5% | 1/10W |
| R960 | 1-216-635-11 | METAL CHIP | 220 | 0.5% | 1/10W |
| R961 | 1-216-635-11 | METAL CHIP | 220 | 0.5% | 1/10W |
| R962 | 1-216-635-11 | METAL CHIP | 220 | 0.5% | 1/10W |
| R981 | 1-216-037-00 | RES-CHIP | 330 | 5% | 1/10W |
| R982 | 1-216-037-00 | RES-CHIP | 330 | 5% | 1/10W |
| R983 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R984 | 1-216-061-91 | RES-CHIP | 3.3K | 5% | 1/10W |
| R985 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R986 | 1-216-061-91 | RES-CHIP | 3.3K | 5% | 1/10W |
| R987 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R988 | 1-216-033-00 | RES-CHIP | 220 | 5% | 1/10W |
| R989 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R990 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R991 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R993 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |

| | | |
|---|---|---|
| RB019 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |
| RB020 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |
| RB021 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |
| RB022 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |
| RB023 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |
| RB024 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |
| RB025 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |
| RB026 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |
| RB027 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |
| RB801 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |
| RB802 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |
| RB803 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |
| RB804 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |
| RB805 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |
| RB806 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |
| RB807 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |
| RB808 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |
| RB809 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |
| RB810 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |
| RB811 | 1-239-409-11 | NETWORK RESISTOR (CHIP) 47 |

**********

# BC1

| REF NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| | * A-1300-298-A | BC1 BOARD COMPLETE (KV-DR29M39/DR29M69/DR29M89) | | | |
| | * A-1300-388-A | BC1 BOARD COMPLETE (KV-DR29M63) | | | |
| | | ********** | | | |
| | | <CAPACITOR> | | | |
| C2001 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C2002 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C2003 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C2004 | 1-107-698-11 | ELECT | 10UF | 20.00% | 25V |
| C2005 | 1-163-131-00 | CERAMIC CHIP | 390PF | 5.00% | 50V |
| C2006 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C2007 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C2008 | 1-104-665-11 | ELECT | 100UF | 20.00% | 10V |
| C2009 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C2010 | 1-163-102-00 | CERAMIC CHIP | 24PF | 5.00% | 50V |
| C2011 | 1-163-102-00 | CERAMIC CHIP | 24PF | 5.00% | 50V |
| C2012 | 1-163-031-91 | CERAMIC CHIP | 0.01UF | | 50V |
| C2013 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C2014 | 1-163-031-91 | CERAMIC CHIP | 0.01UF | | 50V |
| C2016 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C2018 | 1-163-031-91 | CERAMIC CHIP | 0.01UF | | 50V |
| C2019 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C2021 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C2022 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C2023 | 1-163-031-91 | CERAMIC CHIP | 0.01UF | | 50V |
| C2024 | 1-163-031-91 | CERAMIC CHIP | 0.01UF | | 50V |
| C2025 | 1-163-031-91 | CERAMIC CHIP | 0.01UF | | 50V |
| C2026 | 1-163-031-91 | CERAMIC CHIP | 0.01UF | | 50V |
| C2027 | 1-163-031-91 | CERAMIC CHIP | 0.01UF | | 50V |
| C2028 | 1-163-031-91 | CERAMIC CHIP | 0.01UF | | 50V |
| C2029 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C2030 | 1-163-031-91 | CERAMIC CHIP | 0.01UF | | 50V |
| C2032 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C2033 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C2034 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C2035 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C2036 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C2037 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C2038 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C2039 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C2040 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C2041 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C2044 | 1-104-665-11 | ELECT | 100UF | 20.00% | 10V |
| C2045 | 1-163-106-00 | CERAMIC CHIP | 36PF | 5.00% | 50V |
| C2046 | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C2047 | 1-164-505-11 | CERAMIC CHIP | 2.2UF | | 16V |
| C2048 | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C2049 | 1-126-960-11 | ELECT | 1UF | 20.00% | 50V |
| C2050 | 1-163-231-11 | CERAMIC CHIP | 15PF | 5.00% | 50V |
| C2051 | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C2052 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5.00% | 50V |
| C2053 | 1-109-889-11 | ELECT | 1UF | 20.00% | 50V |
| C2054 | 1-163-031-91 | CERAMIC CHIP | 0.01UF | | 50V |
| C2055 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C2056 | 1-163-231-11 | CERAMIC CHIP | 15PF | 5.00% | 50V |
| C2058 | 1-163-031-91 | CERAMIC CHIP | 0.01UF | | 50V |
| C2063 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C2064 | 1-163-031-91 | CERAMIC CHIP | 0.01UF | | 50V |
| C2066 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C2072 | 1-163-237-11 | CERAMIC CHIP | 27PF | 5.00% | 50V |
| C2074 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C2075 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C2078 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C2079 | 1-163-031-91 | CERAMIC CHIP | 0.01UF | | 50V |
| C2081 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C2096 | 1-163-231-11 | CERAMIC CHIP | 15PF | 5.00% | 50V |
| C2097 | 1-163-231-11 | CERAMIC CHIP | 15PF | 5.00% | 50V |
| C2100 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C2101 | 1-163-031-91 | CERAMIC CHIP | 0.01UF | | 50V |
| C2103 | 1-163-031-91 | CERAMIC CHIP | 0.01UF | | 50V |
| C2104 | 1-163-031-91 | CERAMIC CHIP | 0.01UF | | 50V |
| C2105 | 1-163-031-91 | CERAMIC CHIP | 0.01UF | | 50V |
| C2300 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C2301 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C2302 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C2303 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C2304 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C2305 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C2306 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C2307 | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C2308 | 1-107-823-11 | CERAMIC CHIP | 0.47UF | 10.00% | 16V |
| C2309 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C2310 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C2312 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C2313 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C2314 | 1-163-007-11 | CERAMIC CHIP | 680PF | 10.00% | 50V |
| C2315 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C2316 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C2317 | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C2318 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C2319 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5.00% | 50V |
| C2320 | 1-163-229-11 | CERAMIC CHIP | 12PF | 5.00% | 50V |
| C2321 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C2322 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5.00% | 50V |
| C2323 | 1-163-229-11 | CERAMIC CHIP | 12PF | 5.00% | 50V |
| C2324 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C2326 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C2327 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C2330 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| C2331 | 1-163-021-91 | CERAMIC CHIP | 0.01UF | 10.00% | 50V |
| | | <CONNECTOR> | | | |
| CN2001 | 1-793-496-11 | CONNECTOR, BOARD TO BOARD 20P | | | |
| | | <FERRITE BEAD> | | | |
| FB2001 | 1-414-234-22 | FERRITE | 0UH | | |
| FB2002 | 1-414-234-22 | FERRITE | 0UH | | |
| FB2008 | 1-414-234-22 | FERRITE | 0UH | | |
| FB2010 | 1-414-234-22 | FERRITE | 0UH | | |
| FB2011 | 1-414-234-22 | FERRITE | 0UH | | |
| FB2012 | 1-414-234-22 | FERRITE | 0UH | | |
| FB2014 | 1-414-234-22 | FERRITE | 0UH | | |
| FB2015 | 1-414-234-22 | FERRITE | 0UH | | |
| FB2016 | 1-216-295-91 | SHORT CHIP | 0 | | |
| FB2017 | 1-216-295-91 | SHORT CHIP | 0 | | |
| | | <FILTER> | | | |
| FL2000 | 1-236-071-11 | ENCAPSULATED COMPONENT | | | |
| FL2001 | 1-239-848-11 | FILTER, LOW PASS | | | |

**BC1**

| REF NO. | PART NO. | DESCRIPTION | | REMARK |
|---|---|---|---|---|
| FL2002 | 1-239-848-11 | FILTER, LOW PASS | | |
| FL2003 | 1-239-848-11 | FILTER, LOW PASS | | |
| FL2004 | 1-239-848-11 | FILTER, LOW PASS | | |
| | | <IC> | | |
| IC2001 | 6-700-394-01 | IC BA25BC0FP-E2 | | |
| IC2004 | 6-700-960-01 | IC UPD64083GF-3BA | | |
| IC2005 | 8-759-460-72 | BA033FP-E2 | | |
| IC2300 | 6-701-972-01 | IC TC90A69F | | |
| | | <COIL> | | |
| L2001 | 1-410-200-31 | INDUCTOR | 4.7UH | |
| L2002 | 1-412-058-11 | INDUCTOR | 10UH | |
| L2003 | 1-412-058-11 | INDUCTOR | 10UH | |
| L2005 | 1-412-058-11 | INDUCTOR | 10UH | |
| L2006 | 1-412-058-11 | INDUCTOR | 10UH | |
| L2007 | 1-412-058-11 | INDUCTOR | 10UH | |
| L2008 | 1-412-058-11 | INDUCTOR | 10UH | |
| L2300 | 1-412-058-11 | INDUCTOR | 10UH | |
| L2301 | 1-412-031-11 | INDUCTOR | 47UH | |
| L2302 | 1-412-031-11 | INDUCTOR | 47UH | |
| L2303 | 1-412-031-11 | INDUCTOR | 47UH | |
| L2304 | 1-410-514-11 | INDUCTOR | 27UH | |
| L2305 | 1-410-514-11 | INDUCTOR | 27UH | |
| L2306 | 1-412-058-11 | INDUCTOR | 10UH | |
| L2307 | 1-412-026-11 | INDUCTOR | 1UH | |
| | | <TRANSISTOR> | | |
| Q2002 | 8-729-026-49 | 2SA1037AK-T146-R | | |
| Q2003 | 8-729-026-49 | 2SA1037AK-T146-R | | |
| Q2004 | 8-729-026-49 | 2SA1037AK-T146-R | | |
| Q2005 | 8-729-010-25 | MSD601-RT1 | | |
| Q2006 | 8-729-010-25 | MSD601-RT1 | | |
| Q2007 | 8-729-010-25 | MSD601-RT1 | | |
| Q2008 | 8-729-010-25 | MSD601-RT1 | | |
| Q2009 | 8-729-010-25 | MSD601-RT1 | | |
| Q2010 | 8-729-010-25 | MSD601-RT1 | | |
| Q2011 | 8-729-010-25 | MSD601-RT1 | | |
| Q2012 | 8-729-026-49 | 2SA1037AK-T146-R | | |
| Q2013 | 8-729-026-49 | 2SA1037AK-T146-R | | |
| Q2014 | 8-729-010-25 | MSD601-RT1 | | |
| Q2015 | 8-729-010-25 | MSD601-RT1 | | |
| Q2016 | 8-729-010-25 | MSD601-RT1 | | |
| Q2018 | 8-729-026-49 | 2SA1037AK-T146-R | | |
| Q2019 | 8-729-010-25 | MSD601-RT1 | | |
| Q2301 | 8-729-026-49 | 2SA1037AK-T146-R | | |
| Q2302 | 8-729-010-25 | MSD601-RT1 | | |
| Q2303 | 8-729-010-25 | MSD601-RT1 | | |
| Q2304 | 8-729-026-49 | 2SA1037AK-T146-R | | |
| Q2305 | 8-729-010-25 | MSD601-RT1 | | |
| Q2306 | 8-729-010-25 | MSD601-RT1 | | |
| Q2307 | 8-729-010-25 | MSD601-RT1 | | |
| Q2308 | 8-729-026-49 | 2SA1037AK-T146-R | | |
| Q2309 | 8-729-010-25 | MSD601-RT1 | | |
| | | <RESISTOR> | | |
| R2001 | 1-216-073-91 | RES-CHIP | 10K | 5% 1/10W |
| R2002 | 1-216-295-91 | SHORT CHIP | 0 | |

| REF NO. | PART NO. | DESCRIPTION | | REMARK |
|---|---|---|---|---|
| R2004 | 1-216-295-91 | SHORT CHIP | 0 | |
| R2005 | 1-216-295-91 | SHORT CHIP | 0 | |
| R2011 | 1-216-041-00 | RES-CHIP | 470 | 5% 1/10W |
| R2012 | 1-216-073-91 | RES-CHIP | 10K | 5% 1/10W |
| R2015 | 1-216-041-00 | RES-CHIP | 470 | 5% 1/10W |
| R2021 | 1-216-025-11 | RES-CHIP | 100 | 5% 1/10W |
| R2027 | 1-216-049-11 | RES-CHIP | 1K | 5% 1/10W |
| R2028 | 1-216-049-11 | RES-CHIP | 1K | 5% 1/10W |
| R2029 | 1-216-043-91 | RES-CHIP | 560 | 5% 1/10W |
| R2030 | 1-216-043-91 | RES-CHIP | 560 | 5% 1/10W |
| R2031 | 1-216-067-00 | RES-CHIP | 5.6K | 5% 1/10W |
| R2032 | 1-216-067-00 | RES-CHIP | 5.6K | 5% 1/10W |
| R2033 | 1-216-037-00 | RES-CHIP | 330 | 5% 1/10W |
| R2034 | 1-216-037-00 | RES-CHIP | 330 | 5% 1/10W |
| R2035 | 1-216-043-91 | RES-CHIP | 560 | 5% 1/10W |
| R2036 | 1-216-644-11 | METAL CHIP | 510 | 0.5% 1/10W |
| R2037 | 1-216-045-00 | RES-CHIP | 680 | 5% 1/10W |
| R2039 | 1-216-057-00 | RES-CHIP | 2.2K | 5% 1/10W |
| R2040 | 1-216-057-00 | RES-CHIP | 2.2K | 5% 1/10W |
| R2041 | 1-216-057-00 | RES-CHIP | 2.2K | 5% 1/10W |
| R2042 | 1-216-057-00 | RES-CHIP | 2.2K | 5% 1/10W |
| R2043 | 1-216-065-91 | RES-CHIP | 4.7K | 5% 1/10W |
| R2044 | 1-216-057-00 | RES-CHIP | 2.2K | 5% 1/10W |
| R2046 | 1-216-057-00 | RES-CHIP | 2.2K | 5% 1/10W |
| R2047 | 1-216-065-91 | RES-CHIP | 4.7K | 5% 1/10W |
| R2048 | 1-216-049-11 | RES-CHIP | 1K | 5% 1/10W |
| R2049 | 1-216-065-91 | RES-CHIP | 4.7K | 5% 1/10W |
| R2050 | 1-216-017-91 | RES-CHIP | 47 | 5% 1/10W |
| R2051 | 1-216-049-11 | RES-CHIP | 1K | 5% 1/10W |
| R2052 | 1-216-049-11 | RES-CHIP | 1K | 5% 1/10W |
| R2053 | 1-216-041-00 | RES-CHIP | 470 | 5% 1/10W |
| R2054 | 1-216-041-00 | RES-CHIP | 470 | 5% 1/10W |
| R2055 | 1-216-017-91 | RES-CHIP | 47 | 5% 1/10W |
| R2056 | 1-216-067-00 | RES-CHIP | 5.6K | 5% 1/10W |
| R2057 | 1-216-049-11 | RES-CHIP | 1K | 5% 1/10W |
| R2058 | 1-216-057-00 | RES-CHIP | 2.2K | 5% 1/10W |
| R2059 | 1-216-049-11 | RES-CHIP | 1K | 5% 1/10W |
| R2060 | 1-216-025-11 | RES-CHIP | 100 | 5% 1/10W |
| R2061 | 1-216-043-91 | RES-CHIP | 560 | 5% 1/10W |
| R2062 | 1-216-105-91 | RES-CHIP | 220K | 5% 1/10W |
| R2063 | 1-216-089-91 | RES-CHIP | 47K | 5% 1/10W |
| R2064 | 1-216-049-11 | RES-CHIP | 1K | 5% 1/10W |
| R2066 | 1-216-033-00 | RES-CHIP | 220 | 5% 1/10W |
| R2067 | 1-216-043-91 | RES-CHIP | 560 | 5% 1/10W |
| R2069 | 1-216-639-11 | METAL CHIP | 330 | 0.5% 1/10W |
| R2070 | 1-216-641-11 | METAL CHIP | 390 | 0.5% 1/10W |
| R2071 | 1-216-067-00 | RES-CHIP | 5.6K | 5% 1/10W |
| R2072 | 1-216-043-91 | RES-CHIP | 560 | 5% 1/10W |
| R2073 | 1-216-049-11 | RES-CHIP | 1K | 5% 1/10W |
| R2074 | 1-216-025-11 | RES-CHIP | 100 | 5% 1/10W |
| R2076 | 1-216-025-11 | RES-CHIP | 100 | 5% 1/10W |
| R2077 | 1-216-025-11 | RES-CHIP | 100 | 5% 1/10W |
| R2108 | 1-216-049-11 | RES-CHIP | 1K | 5% 1/10W |
| R2115 | 1-216-041-00 | RES-CHIP | 470 | 5% 1/10W |
| R2301 | 1-216-041-00 | RES-CHIP | 470 | 5% 1/10W |
| R2306 | 1-216-039-00 | RES-CHIP | 390 | 5% 1/10W |
| R2307 | 1-216-049-11 | RES-CHIP | 1K | 5% 1/10W |
| R2308 | 1-216-047-91 | RES-CHIP | 820 | 5% 1/10W |
| R2309 | 1-216-051-00 | RES-CHIP | 1.2K | 5% 1/10W |
| R2310 | 1-216-069-00 | RES-CHIP | 6.8K | 5% 1/10W |
| R2311 | 1-216-075-00 | RES-CHIP | 12K | 5% 1/10W |

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

**BC1** **C**

| REF NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R2312 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R2313 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R2314 | 1-216-039-00 | RES-CHIP | 390 | 5% | 1/10W |
| R2315 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R2317 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R2318 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R2319 | 1-216-047-91 | RES-CHIP | 820 | 5% | 1/10W |
| R2320 | 1-216-051-00 | RES-CHIP | 1.2K | 5% | 1/10W |
| R2321 | 1-216-075-00 | RES-CHIP | 12K | 5% | 1/10W |
| R2322 | 1-216-069-00 | RES-CHIP | 6.8K | 5% | 1/10W |
| R2323 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R2324 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R2325 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R2326 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R2327 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R2328 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R2330 | 1-216-037-00 | RES-CHIP | 330 | 5% | 1/10W |
| R2331 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R2333 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R2334 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R2335 | 1-414-234-22 | FERRITE | 0UH | | |
| | | <VARIABLE RESISTOR> | | | |
| RV2001 | 1-223-271-21 | RES, ADJ, CERMET 220 | | | |
| | | <CRYSTAL> | | | |
| X2001 | 1-767-606-11 | VIBRATOR, CRYSTAL | | | |

**********

| | | | | | |
|---|---|---|---|---|---|
| * | A-1400-488-A | C BOARD MOUNTED (KV-DR29M39/DR29M69/DR29M89) | | | |
| * | A-1400-690-A | C BOARD MOUNTED (KV-DR29M63) | | | |
| | | ********** | | | |
| | 4-382-854-01 | SCREW (M3X8), P, SW (+) | | | |
| | | <CAPACITOR> | | | |
| C9002 | 1-163-087-00 | CERAMIC CHIP | 4PF | 0.25PF | 50V |
| C9003 | 1-163-087-00 | CERAMIC CHIP | 4PF | 0.25PF | 50V |
| C9004 | 1-104-574-11 | CERAMIC | 0.0047UF | 10.00% | 2KV |
| C9005 | 1-163-087-00 | CERAMIC CHIP | 4PF | 0.25PF | 50V |
| C9006 | 1-163-091-00 | CERAMIC CHIP | 8PF | 0.25PF | 50V |
| C9007 | 1-163-091-00 | CERAMIC CHIP | 8PF | 0.25PF | 50V |
| C9008 | 1-163-091-00 | CERAMIC CHIP | 8PF | 0.25PF | 50V |
| C9009 | 1-163-087-00 | CERAMIC CHIP | 4PF | 0.25PF | 50V |
| C9010 | 1-163-087-00 | CERAMIC CHIP | 4PF | 0.25PF | 50V |
| C9011 | 1-136-207-11 | MYLAR | 0.047UF | 10.00% | 250V |
| C9012 | 1-136-207-11 | MYLAR | 0.047UF | 10.00% | 250V |
| C9014 | 1-136-207-11 | MYLAR | 0.047UF | 10.00% | 250V |
| C9015 | 1-163-087-00 | CERAMIC CHIP | 4PF | 0.25PF | 50V |
| C9016 | 1-102-106-00 | CERAMIC | 100PF | 10.00% | 50V |
| C9018 | 1-107-961-91 | ELECT | 10UF | 20.00% | 250V |
| C9019 | 1-163-035-00 | CERAMIC CHIP | 0.047UF | | 50V |
| C9020 | 1-107-961-91 | ELECT | 10UF | 20.00% | 250V |
| C9021 | 1-107-961-91 | ELECT | 10UF | 20.00% | 250V |
| C9022 | 1-101-004-00 | CERAMIC | 0.01UF | | 50V |
| C9023 | 1-101-004-00 | CERAMIC | 0.01UF | | 50V |

| REF NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| C9024 | 1-163-035-00 | CERAMIC CHIP | 0.047UF | | 50V |
| C9025 | 1-126-934-11 | ELECT | 220UF | 20.00% | 16V |
| C9026 | 1-163-035-00 | CERAMIC CHIP | 0.047UF | | 50V |
| C9027 | 1-101-004-00 | CERAMIC | 0.01UF | | 50V |
| C9028 | 1-163-017-00 | CERAMIC CHIP | 0.0047UF | 10.00% | 50V |
| C9029 | 1-163-017-00 | CERAMIC CHIP | 0.0047UF | 10.00% | 50V |
| C9030 | 1-163-017-00 | CERAMIC CHIP | 0.0047UF | 10.00% | 50V |
| C9031 | 1-104-574-11 | CERAMIC | 0.0047UF | 10.00% | 2KV |
| C9032 | 1-162-116-00 | CERAMIC | 680PF | 10.00% | 2KV |
| C9033 | 1-107-662-11 | ELECT | 22UF | 20.00% | 250V |
| C9035 | 1-104-574-11 | CERAMIC | 0.0047UF | 10.00% | 2KV |
| C9042 | 1-126-940-11 | ELECT | 330UF | 20.00% | 25V |
| C9047 | 1-107-651-11 | ELECT | 4.7UF | 20.00% | 250V |
| | | <CONNECTOR> | | | |
| CN9001 * | 1-564-512-11 | PLUG, CONNECTOR 9P | | | |
| CN9002 | 1-691-765-11 | PLUG (MICRO CONNECTOR) 3P (KV-DR29M39/M69/M89) | | | |
| CN9002 * | 1-564-507-11 | PLUG, CONNECTOR 4P (KV-DR29M63) | | | |
| CN9003 | 1-695-915-11 | TAB (CONTACT) | | | |
| CN9004 | 1-695-915-11 | TAB (CONTACT) | | | |
| CN9007 | 1-785-879-11 | CONNECTOR, ONE TOUCH | | | |
| | | <DIODE> | | | |
| D9002 | 8-719-400-75 | MA3091 | | | |
| D9005 | 8-719-404-50 | MA111-TX (KV-DR29M39/M69/M89) | | | |
| D9005 | 8-719-081-97 | MMDL914T1 (KV-DR29M63) | | | |
| D9006 | 8-719-051-85 | HSS83TD | | | |
| D9007 | 8-719-051-85 | HSS83TD | | | |
| D9008 | 8-719-051-85 | HSS83TD | | | |
| D9009 | 8-719-908-03 | GP08D | | | |
| D9010 | 8-719-110-17 | RD10ESB2 | | | |
| D9011 | 1-216-295-91 | SHORT CHIP | 0 | | |
| D9012 | 1-216-295-91 | SHORT CHIP | 0 | | |
| D9013 | 1-216-295-91 | SHORT CHIP | 0 | | |
| | | <IC> | | | |
| IC9001 | 8-759-360-83 | TDA6111Q/N4 | | | |
| IC9002 | 8-759-360-83 | TDA6111Q/N4 | | | |
| IC9003 | 8-759-360-83 | TDA6111Q/N4 | | | |
| | | <JACK> | | | |
| J9001 ⚠ | 1-540-071-22 | SOCKET, CRT | | | |
| | | <COIL> | | | |
| L9001 | 1-414-158-11 | INDUCTOR | 2.2UH | | |
| L9002 | 1-408-591-11 | INDUCTOR | 1UH | | |
| L9003 | 1-408-591-11 | INDUCTOR | 1UH | | |
| L9004 | 1-408-591-11 | INDUCTOR | 1UH | | |
| L9005 | 1-406-666-21 | INDUCTOR | 150UH | | |
| L9006 | 1-412-526-11 | INDUCTOR | 12UH | | |
| | | <FILTER> | | | |
| LP9001 * | 4-042-408-01 | PIN, COATING LEAD | | | |
| LP9002 * | 4-042-408-01 | PIN, COATING LEAD | | | |

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

C D

| REF NO. | | PART NO. | DESCRIPTION | | REMARK |
|---|---|---|---|---|---|
| LP9003 | * | 4-042-408-01 | PIN, COATING LEAD | | |
| LP9004 | * | 4-042-408-01 | PIN, COATING LEAD | | |
| | | | <NEON LAMP> | | |
| NL9001 | | 1-519-526-11 | LAMP, NEON | | |
| NL9003 | | 1-519-526-11 | LAMP, NEON | | |
| | | | <TRANSISTOR> | | |
| Q9001 | | 8-729-026-49 | 2SA1037AK-T146-R (KV-DR29M39/M69/M89) | | |
| Q9001 | | 8-729-010-05 | MSB709-RT1 (KV-DR29M63) | | |
| Q9009 | | 8-729-026-49 | 2SA1037AK-T146-R (KV-DR29M39/M69/M89) | | |
| Q9009 | | 8-729-010-05 | MSB709-RT1 (KV-DR29M63) | | |
| Q9010 | | 8-729-026-49 | 2SA1037AK-T146-R (KV-DR29M39/M69/M89) | | |
| Q9010 | | 8-729-010-05 | MSB709-RT1 (KV-DR29M63) | | |
| Q9011 | | 8-729-026-49 | 2SA1037AK-T146-R (KV-DR29M39/M69/M89) | | |
| Q9011 | | 8-729-010-05 | MSB709-RT1 (KV-DR29M63) | | |
| | | | <RESISTOR> | | |
| R9001 | | 1-216-059-00 | RES-CHIP | 2.7K | 5% 1/10W |
| R9006 | | 1-216-073-91 | RES-CHIP | 10K | 5% 1/10W |
| R9007 | | 1-208-789-11 | METAL CHIP | 2K | 0.5% 1/10W |
| R9008 | | 1-216-085-91 | RES-CHIP | 33K | 5% 1/10W |
| R9012 | | 1-216-049-11 | RES-CHIP | 1K | 5% 1/10W |
| R9013 | | 1-216-049-11 | RES-CHIP | 1K | 5% 1/10W |
| R9018 | | 1-216-059-00 | RES-CHIP | 2.7K | 5% 1/10W |
| R9019 | | 1-216-059-00 | RES-CHIP | 2.7K | 5% 1/10W |
| R9021 | | 1-216-295-91 | SHORT CHIP | 0 | |
| R9023 | | 1-216-295-91 | SHORT CHIP | 0 | |
| R9026 | | 1-208-789-11 | METAL CHIP | 2K | 0.5% 1/10W |
| R9031 | | 1-208-789-11 | METAL CHIP | 2K | 0.5% 1/10W |
| R9033 | | 1-208-808-11 | METAL CHIP | 12K | 0.5% 1/10W |
| R9034 | | 1-208-800-11 | METAL CHIP | 5.6K | 0.5% 1/10W |
| R9035 | | 1-208-790-11 | METAL CHIP | 2.2K | 0.5% 1/10W |
| R9036 | | 1-216-049-11 | RES-CHIP | 1K | 5% 1/10W |
| R9037 | | 1-240-233-71 | METAL OXIDE | 100 | 5% 3W |
| R9038 | | 1-208-790-11 | METAL CHIP | 2.2K | 0.5% 1/10W |
| R9039 | | 1-208-790-11 | METAL CHIP | 2.2K | 0.5% 1/10W |
| R9041 | | 1-216-049-11 | RES-CHIP | 1K | 5% 1/10W |
| R9042 | | 1-216-049-11 | RES-CHIP | 1K | 5% 1/10W |
| R9043 | | 1-240-233-71 | METAL OXIDE | 100 | 5% 3W |
| R9044 | | 1-240-233-71 | METAL OXIDE | 100 | 5% 3W |
| R9047 | | 1-219-744-11 | CARBON | 220 | 5% 1/2W |
| R9048 | | 1-216-057-00 | RES-CHIP | 2.2K | 5% 1/10W |
| R9049 | | 1-216-057-00 | RES-CHIP | 2.2K | 5% 1/10W |
| R9050 | | 1-249-424-11 | CARBON | 3.9K | 5% 1/4W |
| R9051 | | 1-219-744-11 | CARBON | 220 | 5% 1/2W |
| R9052 | | 1-219-744-11 | CARBON | 220 | 5% 1/2W |
| R9053 | | 1-249-424-11 | CARBON | 3.9K | 5% 1/4W |
| R9054 | | 1-249-424-11 | CARBON | 3.9K | 5% 1/4W |
| R9055 | | 1-243-994-91 | CEMENTED | 820K | 5% 0.5W |
| R9056 | | 1-219-750-91 | CARBON | 22K | 5% 1/2W |
| R9057 | | 1-220-827-91 | RESISTOR | 560K | 5% 1/2W |
| R9058 | | 1-243-994-91 | CEMENTED | 820K | 5% 0.5W |
| R9059 | | 1-219-746-11 | CARBON | 1K | 5% 1/2W |
| R9061 | | 1-219-743-11 | CARBON | 100 | 5% 1/2W |
| R9065 | | 1-216-069-00 | RES-CHIP | 6.8K | 5% 1/10W |
| R9068 | | 1-216-101-00 | RES-CHIP | 150K | 5% 1/10W |
| R9069 | | 1-219-743-11 | CARBON | 100 | 5% 1/2W |
| R9070 | | 1-216-037-00 | RES-CHIP | 330 | 5% 1/10W |
| R9071 | | 1-216-037-00 | RES-CHIP | 330 | 5% 1/10W |
| R9072 | | 1-216-037-00 | RES-CHIP | 330 | 5% 1/10W |
| R9073 | | 1-216-057-00 | RES-CHIP | 2.2K | 5% 1/10W |
| | | | <VARIABLE RESISTOR> | | |
| RV9001 | | 1-241-656-11 | RES, ADJ, METAL FILM 110M | | |
| RV9002 | | 1-230-641-11 | RES, ADJ, METAL GLAZE 2.2M | | |

**********

| | | | |
|---|---|---|---|
| | * | A-1300-292-A | D BOARD COMPLETE (KV-DR29M39) |
| | * | A-1300-387-A | D BOARD COMPLETE (KV-DR29M63) |
| | * | A-1300-405-A | D BOARD COMPLETE (KV-DR29M69/DR29M89) |
| | | | ********** |
| | * | 4-363-146-00 | HEAT SINK, V.OUT |
| | * | 4-374-846-01 | COVER, CAPACITOR, CAP TYPE |
| | | 4-382-854-11 | SCREW (M3X10), P, SW (+) |
| | | 4-382-854-21 | SCREW (M3X14), P, SW (+) |

<CAPACITOR>

| | | | | | |
|---|---|---|---|---|---|
| C6100 | | 1-161-830-00 | CERAMIC | 0.0047UF | 99% 500V |
| C6101 | | 1-107-680-91 | ELECT | 22UF | 20.00% 450V |
| C6102 | | 1-161-830-00 | CERAMIC | 0.0047UF | 99% 500V |
| C6103 | | 1-163-133-00 | CERAMIC CHIP | 470PF | 5.00% 50V |
| C6104 | | 1-163-009-91 | CERAMIC CHIP | 0.001UF | 10.00% 50V |
| C6105 | | 1-115-339-11 | CERAMIC CHIP | 0.1UF | 10.00% 50V |
| C6106 | | 1-162-962-11 | CERAMIC CHIP | 470PF | 10.00% 50V |
| C6107 | | 1-137-605-11 | MYLAR | 0.01UF | 10.00% 250V |
| C6108 | | 1-161-830-00 | CERAMIC | 0.0047UF | 99% 500V |
| C6109 | | 1-126-971-11 | ELECT | 470UF | 20.00% 50V |
| C6110 | | 1-163-009-91 | CERAMIC CHIP | 0.001UF | 10.00% 50V |
| C6111 | | 1-161-830-00 | CERAMIC | 0.0047UF | 99% 500V |
| C6113 | | 1-126-965-91 | ELECT | 22UF | 20.00% 50V |
| C6334 | | 1-126-940-11 | ELECT | 330UF | 20.00% 25V |
| C6600 | | 1-128-550-11 | ELECT | 2200UF | 20.00% 50V |
| C6601 | | 1-126-967-11 | ELECT | 47UF | 20.00% 50V |
| C6602 | | 1-129-720-00 | FILM (KV-DR29M39/M63) | 0.033UF | 5.00% 630V |
| C6603 | | 1-126-949-11 | ELECT | 220UF | 20.00% 35V |
| C6604 | | 1-126-967-11 | ELECT | 47UF | 20.00% 50V |
| C6606 | | 1-162-927-11 | CERAMIC CHIP (KV-DR29M69/M89) | 100PF | 5.00% 50V |
| C6607 | ⚠ | 1-119-892-51 | CERAMIC | 470PF | 10.00% 250V |
| C6608 | ⚠ | 1-119-892-51 | CERAMIC | 470PF | 10.00% 250V |
| C6609 | | 1-126-960-11 | ELECT (KV-DR29M69/M89) | 1UF | 20.00% 50V |
| C6110 | | 1-163-009-91 | CERAMIC CHIP (KV-DR29M69/M89) | 0.001UF | 10.00% 50V |
| C6611 | | 1-115-416-11 | CERAMIC CHIP (KV-DR29M69/M89) | 0.001UF | 5.00% 25V |
| C6612 | | 1-126-964-11 | ELECT (KV-DR29M39/M63) | 10UF | 20.00% 50V |
| C6613 | | 1-161-830-00 | CERAMIC | 0.0047UF | 99% 500V |
| C6614 | | 1-161-830-00 | CERAMIC | 0.0047UF | 500V |
| C6615 | | 1-162-927-11 | CERAMIC CHIP (KV-DR29M39/M63) | 100PF | 5.00% 50V |
| C6616 | | 1-126-961-11 | ELECT (KV-DR29M39/M63) | 2.2UF | 20.00% 50V |

# D

| REF NO. | PART NO. | DESCRIPTION | | REMARK |
|---|---|---|---|---|
| C6617 | 1-161-830-00 | CERAMIC | 0.0047UF | 500V |
| C6618 | 1-162-970-11 | CERAMIC CHIP (KV-DR29M39/M63) | 0.01UF 10.00% | 16V |
| C6619 | 1-161-830-00 | CERAMIC | 0.0047UF 99% | 500V |
| C6620 | 1-162-970-11 | CERAMIC CHIP | 0.01UF 10.00% | 16V |
| C6621 | 1-131-940-11 | ELECT (KV-DR29M69/M89) | 1200UF 20% | 250V |
| C6622 | 1-131-940-11 | ELECT (KV-DR29M69/M89) | 1200UF 20% | 250V |
| C6624 | 1-126-966-11 | ELECT (KV-DR29M39/M63) | 33UF 20.00% | 50V |
| C6629 | 1-125-906-11 | ELECT (KV-DR29M39/M63) | 560UF 20.00% | 450V |
| C6633 | 1-136-479-11 | FILM | 0.001UF 2.00% | 50V |
| C6634 | 1-126-964-11 | ELECT | 10UF 20.00% | 50V |
| C6635 | 1-126-963-11 | ELECT | 4.7UF 20.00% | 50V |
| C6637 | 1-115-339-11 | CERAMIC CHIP | 0.1UF 10.00% | 50V |
| C6645 | 1-163-009-91 | CERAMIC CHIP | 0.001UF 10.00% | 50V |
| C6647 | 1-126-964-11 | ELECT | 10UF 20.00% | 50V |
| C6648 | 1-125-969-91 | CERAMIC | 680PF 10.00% | 1KV |
| C6649 | 1-125-969-91 | CERAMIC | 680PF 10.00% | 1KV |
| C6650 | 1-125-969-91 | CERAMIC | 680PF 10.00% | 1KV |
| C6651 | 1-125-969-91 | CERAMIC | 680PF 10.00% | 1KV |
| C6652 | 1-110-626-11 | ELECT | 330UF 20.00% | 160V |
| C6653 | 1-136-287-11 | MYLAR | 0.0047UF 5.00% | 50V |
| C6654 | 1-126-936-11 | ELECT | 3300UF 20.00% | 16V |
| C6655 | 1-126-936-11 | ELECT | 3300UF 20.00% | 16V |
| C6656 | 1-136-165-00 | FILM | 0.1UF 5.00% | 50V |
| C6658 | 1-104-330-91 | CERAMIC | 470PF 10.00% | 1KV |
| C6660 | 1-126-960-11 | ELECT | 1UF 20.00% | 50V |
| C6661 | 1-126-947-11 | ELECT | 47UF 20.00% | 16V |
| C6662 | 1-126-947-11 | ELECT | 47UF 20.00% | 16V |
| C6665 | 1-126-964-11 | ELECT | 10UF 20.00% | 50V |
| C6666 | 1-137-150-11 | MYLAR | 0.01UF 5.00% | 50V |
| C6668 | 1-126-947-11 | ELECT | 47UF 20.00% | 25V |
| C6669 | 1-125-969-91 | CERAMIC | 680PF 10.00% | 1KV |
| C6670 | 1-125-969-91 | CERAMIC | 680PF 10.00% | 1KV |
| C6672 | 1-135-946-21 | FILM | 47000PF 3% | 800V |
| C6673 | 1-136-189-00 | MYLAR | 0.1UF 10.00% | 250V |
| C6674 | 1-128-527-11 | ELECT | 330UF 20.00% | 25V |
| C6679 | 1-107-823-11 | CERAMIC CHIP | 0.47UF 10.00% | 16V |
| C6800 | 1-102-129-00 | CERAMIC | 0.01UF 10.00% | 50V |
| C6801 | 1-126-947-11 | ELECT | 47UF 20.00% | 16V |
| C6802 | 1-162-974-11 | CERAMIC CHIP | 0.01UF | 50V |
| C6805 | 1-111-087-11 | ELECT | 330UF 20.00% | 25V |
| C6806 | 1-107-933-11 | ELECT | 100UF 20.00% | 100V |
| C6808 | 1-137-401-11 | MYLAR | 0.22UF 10.00% | 100V |
| C6809 | 1-102-074-00 | CERAMIC | 0.001UF 10.00% | 50V |
| C6810 | 1-106-220-00 | MYLAR | 0.1UF 10.00% | 100V |
| C6811 | 1-111-087-11 | ELECT | 330UF 20.00% | 25V |
| C6813 | 1-126-935-11 | ELECT | 470UF 20.00% | 16V |
| C6814 | 1-125-889-91 | CERAMIC CHIP | 2.2UF 10% | 10V |
| C6816 | 1-136-060-00 | FILM | 0.047UF 5.00% | 400V |
| C6818 | 1-126-960-11 | ELECT | 1UF 20.00% | 50V |
| C6819 | 1-126-960-11 | ELECT | 1UF 20.00% | 50V |
| C6820 | 1-102-114-00 | CERAMIC | 470PF 10.00% | 50V |
| C6821 | 1-106-383-00 | MYLAR | 0.047UF 10.00% | 200V |
| C6822 | 1-102-114-00 | CERAMIC | 470PF 10.00% | 50V |
| C6823 | 1-106-383-00 | MYLAR | 0.047UF 10.00% | 200V |
| C6826 | 1-102-030-00 | CERAMIC | 330PF 10.00% | 500V |
| C6827 | 1-102-030-00 | CERAMIC | 330PF 10.00% | 500V |
| C6829 | 1-162-134-11 | CERAMIC | 470PF 10.00% | 2KV |

| REF NO. | PART NO. | DESCRIPTION | | REMARK |
|---|---|---|---|---|
| C6831 | 1-117-835-11 | FILM | 6200PF 3.00% | 1.5KV |
| C6832 | 1-117-836-11 | FILM | 6800PF 3.00% | 1.5KV |
| C6836 | 1-127-681-11 | FILM | 10000PF 2% | 100V |
| C6837 | 1-125-893-11 | FILM | 680PF 3.00% | 1.5KV |
| C6838 | 1-125-893-11 | FILM | 680PF 3.00% | 1.5KV |
| C6839 | 1-126-933-11 | ELECT | 100UF 20.00% | 16V |
| C6840 | 1-126-933-11 | ELECT | 100UF 20.00% | 16V |
| C6841 | 1-115-511-11 | FILM | 0.12UF 5.00% | 250V |
| C6842 | 1-117-667-71 | FILM | 0.47UF 5.00% | 250V |
| C6843 | 1-107-826-11 | CERAMIC CHIP | 0.1UF 10.00% | 16V |
| C6844 | 1-115-339-11 | CERAMIC CHIP | 0.1UF 10.00% | 50V |
| C6845 | 1-115-514-11 | FILM | 0.22UF 5.00% | 250V |
| C6846 | 1-109-945-11 | FILM (KV-DR29M39/M63) | 0.18UF 5.00% | 250V |
| C6848 | 1-113-979-51 | FILM | 0.047UF 5% | 250V |
| C6849 | 1-115-339-11 | CERAMIC CHIP | 0.1UF 10.00% | 50V |
| C6850 | 1-115-339-11 | CERAMIC CHIP | 0.1UF 10.00% | 50V |
| C6851 | 1-107-639-11 | ELECT | 47UF 20.00% | 160V |
| C6853 | 1-102-228-00 | CERAMIC | 470PF 10.00% | 500V |
| C6854 | 1-126-941-11 | ELECT | 470UF 20.00% | 25V |
| C6855 | 1-123-024-21 | ELECT | 33UF | 160V |
| C6856 | 1-126-971-11 | ELECT | 470UF 20.00% | 50V |
| C6857 | 1-102-228-00 | CERAMIC | 470PF 10.00% | 500V |
| C6858 | 1-102-228-00 | CERAMIC | 470PF 10.00% | 500V |
| C6859 | 1-162-129-00 | CERAMIC | 150PF 10.00% | 2KV |
| C6860 | 1-162-131-11 | CERAMIC | 220PF 10.00% | 2KV |
| C6862 | 1-130-202-00 | FILM | 0.022UF 5.00% | 200V |
| C6864 | 1-129-898-00 | FILM | 0.0022UF 5.00% | 630V |
| C6865 | 1-130-202-00 | FILM | 0.022UF 5.00% | 400V |
| C6866 | 1-102-030-00 | CERAMIC | 330PF 10.00% | 500V |
| C6867 | 1-130-785-11 | MYLAR | 0.47UF 10.00% | 100V |
| C6868 | 1-162-974-11 | CERAMIC CHIP | 0.01UF | 50V |
| C6879 | 1-107-960-11 | ELECT | 4.7UF 20.00% | 160V |
| C6882 | 1-104-574-11 | CERAMIC | 0.0047UF 10.00% | 2KV |
| C6884 | 1-125-889-91 | CERAMIC CHIP | 2.2UF 10% | 10V |
| C6885 | 1-162-131-11 | CERAMIC (KV-DR29M39/M63) | 220PF 10.00% | 2KV |
| C6886 | 1-126-964-11 | ELECT | 10UF 20.00% | 50V |
| C6888 | 1-162-964-11 | CERAMIC CHIP | 0.001UF 10.00% | 50V |

<CONNECTOR>

| | | | |
|---|---|---|---|
| CN6602 | * | 1-508-786-00 | PIN, CONNECTOR (5MM PITCH) 2P (KV-DR29M39/M69/M89) |
| CN6603 | * | 1-691-134-11 | PIN, CONNECTOR (PC BOARD) 2P (KV-DR29M39/M63) |
| CN6603 | * | 1-573-963-11 | PIN, CONNECTOR (PC BOARD) 3P (KV-DR29M69/M89) |
| CN6604 | | 1-580-843-11 | PIN, CONNECTOR (POWER) |
| CN6605 | * | 1-764-333-11 | PLUG, CONNECTOR 10P |
| CN6606 | * | 1-764-333-11 | PLUG, CONNECTOR 10P |
| CN6609 | * | 1-508-784-21 | PIN, CONNECTOR (5MM PITCH) 1P |
| CN6610 | * | 1-508-784-21 | PIN, CONNECTOR (5MM PITCH) 1P |
| CN6611 | * | 1-508-784-21 | PIN, CONNECTOR (5MM PITCH) 1P |
| CN6612 | * | 1-508-784-21 | PIN, CONNECTOR (5MM PITCH) 1P |
| CN6613 | * | 1-508-784-21 | PIN, CONNECTOR (5MM PITCH) 1P |
| CN6614 | * | 1-508-784-21 | PIN, CONNECTOR (5MM PITCH) 1P |
| CN6615 | * | 1-508-784-21 | PIN, CONNECTOR (5MM PITCH) 1P |
| CN6616 | * | 1-508-784-21 | PIN, CONNECTOR (5MM PITCH) 1P |
| CN6618 | * | 1-508-784-21 | PIN, CONNECTOR (5MM PITCH) 1P |
| CN6619 | | 1-564-507-41 | PLUG, CONNECTOR 4P |
| CN6801 | * | 1-785-270-12 | PIN, DY CONNECTOR (PC BOARD) |
| CN6802 | * | 1-764-333-11 | PLUG, CONNECTOR 10P |

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

D

| REF NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| CN6803 | 1-793-495-11 | CONNECTOR, BOARD TO BOARD 50P | |
| CN6804 | 1-691-765-11 | PLUG (MICRO CONNECTOR) 3P (KV-DR29M39/M63) | |
| CN6805 | 1-695-915-11 | TAB (CONTACT) | |
| CN6806 | 1-764-334-11 | PLUG, CONNECTOR 11P | |
| CN6809 | 1-695-915-11 | TAB (CONTACT) | |
| CN6810 | 1-785-879-11 | CONNECTOR, ONE TOUCH | |
| CN6811 * | 1-508-784-21 | PIN, CONNECTOR (5MM PITCH) 1P | |
| CN6812 * | 1-508-784-21 | PIN, CONNECTOR (5MM PITCH) 1P | |
| | | <DIODE> | |
| D6100 | 8-719-077-76 | D2SB60A-F04 | |
| D6101 | 8-719-110-49 | RD18ES-B2 | |
| D6102 | 8-719-082-03 | DIODE MM3Z15VT1 | |
| D6103 | 8-719-081-97 | MMDL914T1 | |
| D6104 | 8-719-510-48 | D1N20R | |
| D6105 | 8-719-948-45 | ERA22-08 | |
| D6108 | 8-719-063-73 | DIODE D1NL20U-TR | |
| D6323 | 8-719-032-12 | D1NS6 | |
| D6601 | 8-719-911-19 | 1SS119-25 | |
| D6602 | 8-719-081-97 | MMDL914T1 (KV-DR29M69/M89) | |
| D6603 | 8-719-081-97 | MMDL914T1 (KV-DR29M69/M89) | |
| D6604 | 8-719-081-97 | MMDL914T1 (KV-DR29M69/M89) | |
| D6605 | 8-719-510-53 | D4SB60L | |
| D6608 | 8-719-081-97 | MMDL914T1 | |
| D6609 | 8-719-911-19 | 1SS119-25 (KV-DR29M69/M89) | |
| D6610 | 8-719-081-97 | MMDL914T1 (KV-DR29M69/M89) | |
| D6611 | 8-719-081-97 | MMDL914T1 (KV-DR29M69/M89) | |
| D6612 | 8-719-911-55 | U05G (KV-DR29M69/M89) | |
| D6613 | 8-719-911-55 | U05G (KV-DR29M69/M89) | |
| D6614 | 8-719-110-30 | RD12ES-B1 | |
| D6615 | 8-719-911-19 | 1SS119-25 | |
| D6618 | 8-719-979-64 | UF4005PKG23 | |
| D6620 | 8-719-063-73 | DIODE D1NL20U-TR | |
| D6623 | 8-719-911-19 | 1SS119-25 | |
| D6631 | 8-719-050-18 | D4SBL20U | |
| D6632 | 8-719-081-97 | MMDL914T1 | |
| D6633 | 8-719-510-12 | D10SC4M | |
| D6635 | 8-719-110-47 | RD18ESB | |
| D6636 | 8-719-911-19 | 1SS119-25 | |
| D6639 | 8-719-063-73 | DIODE D1NL20U-TR | |
| D6640 | 8-719-110-72 | RD30ESB2 | |
| D6641 | 8-719-109-96 | RD6.8ES-B1 | |
| D6642 | 8-719-911-19 | 1SS119-25 | |
| D6644 | 8-719-052-92 | D10SBS4F | |
| D6648 | 8-719-110-30 | RD12ES-B1 (KV-DR29M69/M89) | |
| D6654 | 8-719-052-92 | D10SBS4F | |
| D6802 | 8-719-911-19 | 1SS119-25 | |
| D6803 | 8-719-510-73 | S3L20UF4 | |
| D6804 | 8-719-911-19 | 1SS119-25 | |
| D6806 | 8-719-911-19 | 1SS119-25 | |
| D6808 | 8-719-110-02 | RD7.5ES-B1 | |
| D6812 | 8-719-110-39 | RD15ES-B1 | |
| D6813 | 8-719-302-43 | EL1Z | |
| D6814 | 8-719-018-82 | RGP02-20EL-6394 | |
| D6816 | 8-719-510-73 | S3L20UF4 | |
| D6817 | 8-719-510-73 | S3L20UF4 | |
| D6820 | 8-719-970-87 | ERA38-06 | |
| D6821 | 8-719-970-87 | ERA38-06 | |
| D6824 | 8-719-510-73 | S3L20UF4 | |
| D6825 | 8-719-050-38 | DIODE M1MA152WK-T1 | |

| REF NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| D6830 | 8-719-988-61 | 1SS355TE-17 | |
| D6831 | 8-719-945-81 | ERC06-15SA | |
| | | <FERRITE BEAD> | |
| FB6602 | 1-239-358-21 | FILTER, NOISE | |
| FB6603 | 1-239-358-21 | FILTER, NOISE | |
| FB6604 | 1-410-396-41 | FERRITE | 0.45UH |
| FB6605 | 1-410-396-41 | FERRITE | 0.45UH |
| FB6606 | 1-410-397-21 | FERRITE | 1.1UH |
| FB6607 | 1-410-396-41 | FERRITE | 0.45UH |
| FB6608 | 1-410-396-41 | FERRITE | 0.45UH |
| | | <IC> | |
| IC6600 | 8-759-670-30 | MCZ3001D | |
| IC6601 | 8-759-198-31 | UPC1093J-1-T (KV-DR29M39/M63) | |
| IC6607 | 8-749-012-13 | DM-58 | |
| IC6608 | 8-759-133-90 | UPC339C (KV-DR29M39/M63) | |
| IC6800 | 8-759-696-71 | STV9379A | |
| IC6804 | 8-759-394-36 | BA09T | |
| IC6805 | 8-759-394-35 | BA12T | |
| | | <CHIP CONDUCTOR> | |
| JR6601 | 1-216-295-91 | SHORT CHIP | 0 |
| JR6603 | 1-216-295-91 | SHORT CHIP | 0 |
| JR6608 | 1-216-295-91 | SHORT CHIP | 0 |
| JR6609 | 1-216-295-91 | SHORT CHIP | 0 |
| JR6614 | 1-216-295-91 | SHORT CHIP | 0 |
| JR6615 | 1-216-295-91 | SHORT CHIP | 0 |
| JR6616 | 1-216-295-91 | SHORT CHIP | 0 |
| | | <COIL> | |
| L6604 | 1-412-525-31 | INDUCTOR | 10UH |
| L6605 | 1-412-525-31 | INDUCTOR | 10UH |
| L6606 | 1-412-525-31 | INDUCTOR | 10UH |
| L6607 | 1-412-519-11 | INDUCTOR | 3.3UH |
| L6608 | 1-412-525-31 | INDUCTOR | 10UH |
| L6800 | 1-412-525-31 | INDUCTOR | 10UH |
| L6801 | 1-406-675-11 | INDUCTOR | 4.7MH |
| L6803 | 1-406-985-11 | INDUCTOR | 2.2MH |
| L6804 | 1-412-519-11 | INDUCTOR | 3.3UH |
| L6805 | 1-412-519-11 | INDUCTOR | 3.3UH |
| L6806 | 1-412-519-11 | INDUCTOR | 3.3UH |
| L6807 | 1-412-552-11 | INDUCTOR | 2.2MH |
| L6808 | 1-406-674-11 | INDUCTOR | 3.3MH |
| | | <PHOTO COUPLER> | |
| PH6601 ⚠ | 8-749-924-35 | ON3171-R | |
| PH6602 ⚠ | 8-749-924-35 | ON3171-R | |
| | | <IC LINK> | |
| PS6605 | 1-533-597-41 | LINK, IC | |
| PS6606 | 1-533-597-41 | LINK, IC | |
| PS6609 | 1-533-597-41 | LINK, IC | |
| PS6801 | 1-532-841-21 | LINK, IC | |

# D

| REF NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| | | <TRANSISTOR> | | | |
| Q6100 | 8-729-046-40 | 2SK2663 | | | |
| Q6102 | 8-729-023-22 | 2SD2114K | | | |
| Q6600 | 8-729-052-32 | IRFIB7N50A | | | |
| Q6601 | 8-729-119-78 | 2SC2785-HFE | | | |
| Q6602 | 8-729-119-78 | 2SC2785-HFE (KV-DR29M69/M89) | | | |
| Q6603 | 8-729-052-32 | IRFIB7N50A | | | |
| Q6604 | 8-729-119-76 | 2SA1175-HFE | | | |
| Q6605 | 8-729-230-49 | 2SC2712-YG (KV-DR29M39/M63) | | | |
| Q6608 | 8-729-200-21 | 2SC2500-B | | | |
| Q6609 | 8-729-029-56 | DTA144ESA | | | |
| Q6610 | 8-729-119-78 | 2SC2785-HFE | | | |
| Q6611 | 8-729-029-66 | DTC114ESA | | | |
| Q6613 | 8-729-030-02 | DTC144ESA | | | |
| Q6614 | 8-729-119-76 | 2SA1175-HFE (KV-DR29M39/M63) | | | |
| Q6619 | 8-729-119-78 | 2SC2785-HFE | | | |
| Q6620 | 8-729-119-78 | 2SC2785-HFE | | | |
| Q6800 | 8-729-421-19 | UN2213 | | | |
| Q6802 | 8-729-025-19 | IRFI740G | | | |
| Q6803 | 8-729-119-76 | 2SA1175-HFE | | | |
| Q6804 | 8-729-119-78 | 2SC2785-HFE | | | |
| Q6805 | 8-729-140-96 | 2SD774-34 | | | |
| Q6806 | 8-729-140-96 | 2SD774-34 | | | |
| Q6807 | 8-729-056-17 | TRANSISTOR 2SC5696-SONY-CA | | | |
| Q6808 | 8-729-056-16 | TRANSISTOR 2SC5698-SONY-CA | | | |
| Q6809 | 8-729-050-48 | TRANSISTOR IRF614-005 | | | |
| Q6810 | 8-729-047-60 | IRFI830G-LF49 | | | |
| Q6811 | 8-729-010-25 | MSD601-RT1 | | | |
| Q6812 | 8-729-043-95 | 2SC3840(3) | | | |
| Q6819 | 8-729-010-25 | MSD601-RT1 | | | |
| Q6820 | 8-729-010-25 | MSD601-RT1 | | | |
| Q6821 | 8-729-010-25 | MSD601-RT1 | | | |
| | | <RESISTOR> | | | |
| R6100 | 1-260-298-51 | CARBON | 3.3 | 5% | 1/2W |
| R6101 | 1-216-045-00 | RES-CHIP | 680 | 5% | 1/10W |
| R6102 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W |
| R6103 | 1-216-009-91 | RES-CHIP | 22 | 5% | 1/10W |
| R6104 | 1-240-205-91 | CARBON | 22M | 5% | 1/2W |
| R6105 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R6106 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6107 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R6108 | 1-215-493-00 | METAL | 1M | 1% | 1/4W |
| R6110 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W |
| R6500 | 1-220-797-11 | CEMENTED | 0.47 | 5% | 10W |
| R6600 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6602 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R6603 | 1-218-871-11 | METAL CHIP (KV-DR29M39/M63) | 10K | 0.5% | 1/10W |
| R6604 | 1-218-871-11 | METAL CHIP (KV-DR29M39/M63) | 10K | 0.5% | 1/10W |
| R6605 | 1-215-471-00 | METAL (KV-DR29M69/M89) | 120K | 1% | 1/4W |
| R6606 | 1-215-466-00 | METAL (KV-DR29M69/M89) | 75K | 1% | 1/4W |
| R6607 | 1-215-489-00 | METAL (KV-DR29M69/M89) | 680K | 1% | 1/4W |
| R6608 | 1-215-489-00 | METAL (KV-DR29M69/M89) | 680K | 1% | 1/4W |
| R6609 | 1-215-489-00 | METAL (KV-DR29M69/M89) | 680K | 1% | 1/4W |
| R6610 | 1-208-830-11 | METAL CHIP (KV-DR29M69/M89) | 100K | 0.5% | 1/10W |
| R6611 | 1-218-863-11 | METAL CHIP (KV-DR29M39/M63) | 4.7K | 0.5% | 1/10W |
| R6612 | 1-215-471-00 | METAL (KV-DR29M69/M89) | 120K | 1% | 1/4W |
| R6613 | 1-215-489-00 | METAL (KV-DR29M69/M89) | 680K | 1% | 1/4W |
| R6614 | 1-215-489-00 | METAL (KV-DR29M69/M89) | 680K | 1% | 1/4W |
| R6615 | 1-215-489-00 | METAL (KV-DR29M69/M89) | 680K | 1% | 1/4W |
| R6616 | 1-208-830-11 | METAL CHIP (KV-DR29M69/M89) | 100K | 0.5% | 1/10W |
| R6617 | 1-218-909-11 | METAL CHIP (KV-DR29M69/M89) | 390K | 0.5% | 1/10W |
| R6618 | 1-215-466-00 | METAL (KV-DR29M69/M89) | 75K | 1% | 1/4W |
| R6619 | 1-216-853-11 | RES-CHIP (KV-DR29M69/M89) | 470K | 5% | 1/10W |
| R6620 | 1-218-911-11 | METAL CHIP (KV-DR29M69/M89) | 470K | 0.5% | 1/10W |
| R6621 | 1-216-073-91 | RES-CHIP (KV-DR29M69/M89) | 10K | 5% | 1/10W |
| R6622 | 1-220-797-11 | CEMENTED | 0.47 | 5% | 10W |
| R6623 | 1-215-864-00 | METAL OXIDE (KV-DR29M69/M89) | 150 | 5% | 1W |
| R6624 | 1-218-895-11 | METAL CHIP (KV-DR29M39/M63) | 100K | 0.5% | 1/10W |
| R6625 | 1-215-864-00 | METAL OXIDE | 150 | 5% | 1W |
| R6626 | 1-215-444-00 | METAL | 9.1K | 1% | 1/4W |
| R6627 | 1-215-481-00 | METAL | 330K | 1% | 1/4W |
| R6628 | 1-216-833-11 | RES-CHIP (KV-DR29M39/M63) | 10K | 5% | 1/10W |
| R6629 | 1-215-481-00 | METAL | 330K | 1% | 1/4W |
| R6630 | 1-215-481-00 | METAL | 330K | 1% | 1/4W |
| R6631 | 1-208-808-11 | METAL CHIP | 12K | 0.5% | 1/10W |
| R6632 | 1-208-758-11 | METAL CHIP | 100 | 0.5% | 1/10W |
| R6633 | 1-215-458-00 | METAL (KV-DR29M39/M63) | 36K | 1% | 1/4W |
| R6634 | 1-215-489-00 | METAL (KV-DR29M39/M63) | 680K | 1% | 1/4W |
| R6635 | 1-215-489-00 | METAL (KV-DR29M39/M63) | 680K | 1% | 1/4W |
| R6636 | 1-215-489-00 | METAL (KV-DR29M39/M63) | 680K | 1% | 1/4W |
| R6637 | 1-215-463-00 | METAL (KV-DR29M39/M63) | 56K | 1% | 1/4W |
| R6638 | 1-245-291-11 | RES, CEMENT-COATED (KV-DR29M39/M63) | 2.2 | | |
| R6638 | 1-240-876-11 | CEMENTED (KV-DR29M69/M89) | 1 | 5% | 15W |
| R6639 | 1-240-876-11 | CEMENTED (KV-DR29M69/M89) | 1 | 5% | 15W |
| R6640 | 1-216-081-00 | RES-CHIP (KV-DR29M69/M89) | 22K | 5% | 1/10W |
| R6641 | 1-260-131-11 | CARBON (KV-DR29M69/M89) | 470K | 5% | 1/2W |
| R6642 | 1-260-131-11 | CARBON (KV-DR29M69/M89) | 470K | 5% | 1/2W |
| R6643 | 1-216-081-00 | RES-CHIP (KV-DR29M69/M89) | 22K | 5% | 1/10W |
| R6644 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R6645 | 1-220-886-11 | FUSIBLE | 0.1 | 10% | 1W |
| R6647 | 1-216-639-11 | METAL CHIP | 330 | 0.5% | 1/10W |

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

D

| REF NO. | | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|---|
| R6648 | | 1-216-829-11 | RES-CHIP (KV-DR29M39/M63) | 4.7K | 5% | 1/10W |
| R6649 | | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R6654 | | 1-216-841-11 | RES-CHIP (KV-DR29M39/M63) | 47K | 5% | 1/10W |
| R6655 | | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6658 | | 1-249-393-11 | CARBON | 10 | 5% | 1/4W |
| R6659 | | 1-249-393-11 | CARBON | 10 | 5% | 1/4W |
| R6660 | | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6662 | | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R6663 | | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R6664 | | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R6666 | | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R6667 | | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R6669 | | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R6670 | | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6671 | | 1-217-611-00 | METAL | 0.1 | 10% | 2W |
| R6672 | | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R6674 | | 1-249-418-11 | CARBON | 1.2K | 5% | 1/4W |
| R6675 | | 1-208-774-11 | METAL CHIP | 470 | 0.5% | 1/10W |
| R6679 | | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R6680 | | 1-216-362-11 | METAL OXIDE | 0.27 | 5% | 2W |
| R6681 | | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R6682 | | 1-249-416-11 | CARBON | 820 | 5% | 1/4W |
| R6683 | | 1-260-127-11 | CARBON | 220K | 5% | 1/2W |
| R6685 | | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R6686 | ⚠ | 1-247-289-11 | CARBON | 8.2M | 5% | 1W |
| R6688 | | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R6689 | | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W |
| R6690 | | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R6691 | | 1-260-131-11 | CARBON | 470K | 5% | 1/2W |
| R6692 | | 1-249-410-11 | CARBON | 270 | 5% | 1/4W |
| R6693 | | 1-215-451-00 | METAL | 18K | 1% | 1/4W |
| R6694 | | 1-215-471-00 | METAL | 120K | 1% | 1/4W |
| R6696 | | 1-215-925-11 | METAL OXIDE | 22K | 5% | 3W |
| R6699 | | 1-216-833-11 | RES-CHIP (KV-DR29M39/M63) | 10K | 5% | 1/10W |
| R6701 | | 1-216-833-11 | RES-CHIP (KV-DR29M39/M63) | 10K | 5% | 1/10W |
| R6702 | | 1-216-840-11 | RES-CHIP (KV-DR29M39/M63) | 39K | 5% | 1/10W |
| R6704 | | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W |
| R6710 | | 1-217-158-00 | METAL | 0.47 | 10% | 5W |
| R6713 | | 1-218-887-11 | METAL CHIP (KV-DR29M39/M63) | 47K | 0.5% | 1/10W |
| R6715 | | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R6801 | | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R6802 | | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6803 | | 1-215-435-00 | METAL | 3.9K | 1% | 1/4W |
| R6804 | | 1-218-861-11 | METAL CHIP | 3.9K | 0.5% | 1/10W |
| R6805 | | 1-208-802-11 | METAL CHIP | 6.8K | 0.5% | 1/10W |
| R6806 | | 1-218-861-11 | METAL CHIP | 3.9K | 0.5% | 1/10W |
| R6807 | | 1-249-383-11 | CARBON | 1.5 | 5% | 1/4W |
| R6808 | | 1-216-603-11 | METAL CHIP | 10 | 0.5% | 1/10W |
| R6810 | | 1-214-798-21 | METAL | 1.8 | 1% | 1/2W |
| R6811 | | 1-215-913-11 | METAL OXIDE | 220 | 5% | 3W |
| R6813 | | 1-214-798-21 | METAL | 1.8 | 1% | 1/2W |
| R6815 | | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R6816 | | 1-216-085-91 | RES-CHIP | 33K | 5% | 1/10W |
| R6817 | | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6818 | | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |

| REF NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R6822 | 1-215-896-00 | METAL OXIDE | 4.7K | 5% | 2W |
| R6823 | 1-215-895-11 | METAL OXIDE | 3.3K | 5% | 2W |
| R6824 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W |
| R6825 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W |
| R6826 | 1-215-895-11 | METAL OXIDE | 3.3K | 5% | 2W |
| R6827 | 1-216-460-21 | METAL OXIDE | 3.9K | 5% | 2W |
| R6828 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W |
| R6829 | 1-249-419-11 | CARBON | 1.5K | 5% | 1/4W |
| R6830 | 1-247-764-11 | CARBON | 10K | 5% | 1/2W |
| R6831 | 1-247-764-11 | CARBON | 10K | 5% | 1/2W |
| R6832 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6834 | 1-243-979-71 | METAL OXIDE | 0.1 | 5% | 2W |
| R6835 | 1-216-365-00 | METAL OXIDE | 0.47 | 5% | 2W |
| R6836 | 1-215-880-00 | METAL OXIDE | 10 | 5% | 2W |
| R6837 | 1-215-880-00 | METAL OXIDE | 10 | 5% | 2W |
| R6839 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W |
| R6841 | 1-216-434-11 | METAL OXIDE | 1.8K | 5% | 1W |
| R6842 | 1-216-486-00 | METAL OXIDE | 8.2K | 5% | 3W |
| R6843 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6844 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R6846 | 1-260-127-11 | CARBON | 220K | 5% | 1/2W |
| R6847 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6848 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R6849 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R6850 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6851 | 1-260-288-11 | CARBON | 0.47 | 5% | 1/2W |
| R6852 | 1-216-345-11 | METAL OXIDE | 0.47 | 5% | 1W |
| R6853 | 1-260-288-11 | CARBON | 0.47 | 5% | 1/2W |
| R6854 | 1-216-486-00 | METAL OXIDE | 8.2K | 5% | 3W |
| R6855 | 1-214-897-00 | METAL | 22K | 1% | 1/2W |
| R6856 | 1-216-486-00 | METAL OXIDE | 8.2K | 5% | 3W |
| R6857 | 1-216-486-00 | METAL OXIDE | 8.2K | 5% | 3W |
| R6858 | 1-214-897-00 | METAL | 22K | 1% | 1/2W |
| R6859 | 1-215-871-11 | METAL OXIDE | 2.2K | 5% | 1W |
| R6860 | 1-216-486-00 | METAL OXIDE | 8.2K | 5% | 3W |
| R6863 | 1-215-894-11 | METAL OXIDE | 2.2K | 5% | 2W |
| R6864 | 1-215-429-00 | METAL | 2.2K | 1% | 1/4W |
| R6865 | 1-215-429-00 | METAL | 2.2K | 1% | 1/4W |
| R6866 | 1-215-423-00 | METAL | 1.2K | 1% | 1/4W |
| R6867 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R6868 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R6869 | 1-216-849-11 | RES-CHIP | 220K | 5% | 1/10W |
| R6870 | 1-216-085-91 | RES-CHIP | 33K | 5% | 1/10W |
| R6872 | 1-260-125-11 | CARBON | 150K | 5% | 1/2W |
| R6873 | 1-260-125-11 | CARBON | 150K | 5% | 1/2W |
| R6875 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R6876 | 1-216-391-11 | METAL OXIDE | 1.5 | 5% | 3W |
| R6880 | 1-208-802-11 | METAL CHIP | 6.8K | 0.5% | 1/10W |
| R6884 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R6889 | 1-260-123-11 | CARBON | 100K | 5% | 1/2W |
| R6890 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6894 | 1-260-123-11 | CARBON | 100K | 5% | 1/2W |
| R6895 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6896 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6897 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6899 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6905 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W |
| R6906 | 1-214-897-00 | METAL | 22K | 1% | 1/2W |
| R6908 | 1-247-903-00 | CARBON | 1M | 5% | 1/4W |
| R6909 | 1-247-903-00 | CARBON | 1M | 5% | 1/4W |
| R6910 | 1-247-895-91 | CARBON | 470K | 5% | 1/4W |

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

# D D5

| REF NO. | | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|---|
| | | | <RELAY> | |
| RY6601 | ⚠ | 1-755-198-12 | RELAY | |
| RY6602 | | 1-755-357-11 | RELAY, AC POWER (KV-DR29M69/M89) | |
| RY6603 | | 1-755-357-11 | RELAY, AC POWER | |
| | | | <TRANSFORMER> | |
| T6100 | ⚠ | 1-433-844-11 | TRANSFORMER, CONVERTER | |
| T6602 | ⚠ | 1-435-690-11 | TRANSFORMER, CONVERTER (PIT) | |
| T6800 | | 1-429-741-11 | TRANSFORMER, DRIVE | |
| T6801 | | 1-437-690-11 | TRANSFORMER, FERRITE (DFT) | |
| T6802 | | 1-437-430-11 | TRANSFORMER, FERRITE (HDT) | |
| T6803 | ⚠ | 1-453-325-12 | TRANSFORMER ASSY FLY BACK (NX-4522//M3B4) | |
| T6804 | | 1-437-430-11 | TRANSFORMER, FERRITE (HDT) | |
| | | | <THERMISTOR> | |
| TH6100 | | 1-803-586-11 | THERMISTOR, NTC | |
| TH6601 | | 1-803-540-11 | THERMISTOR | |
| TH6801 | | 1-800-193-00 | THERMISTOR | |
| | | | <VARISTOR> | |
| VD6603 | | 1-803-830-11 | VARISTOR (ERZV14D621) (KV-DR29M39/M63) | |

**********

| | | | |
|---|---|---|---|
| * | A-1400-486-A | D5 BOARD MOUNTED (KV-DR29M39/DR29M69/DR29M89) | |
| * | A-1400-689-A | D5 BOARD MOUNTED (KV-DR29M63) | |
| | | ********** | |
| | 4-382-854-11 | SCREW (M3X10), P, SW (+) | |
| | | <CAPACITOR> | |

| | | | | | |
|---|---|---|---|---|---|
| C6101 | 1-126-965-91 | ELECT | 22UF | 20.00% | 50V |
| C6102 | 1-126-965-91 | ELECT | 22UF | 20.00% | 50V |
| C6103 | 1-107-725-11 | CERAMIC CHIP | 0.1UF | 10.00% | 16V |
| C6104 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C6105 | 1-126-960-11 | ELECT | 1UF | 20.00% | 50V |
| C6106 | 1-136-347-11 | FILM | 0.0047UF | 5.00% | 630V |
| C6107 | 1-162-970-11 | CERAMIC CHIP | 0.01UF | 10.00% | 25V |
| C6108 | 1-162-970-11 | CERAMIC CHIP | 0.01UF | 10.00% | 25V |
| C6109 | 1-129-716-00 | FILM | 0.015UF | 5.00% | 630V |
| C6110 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C6111 | 1-136-165-00 | FILM | 0.1UF | 5.00% | 50V |
| C6114 | 1-107-725-11 | CERAMIC CHIP | 0.1UF | 10.00% | 16V |
| C6115 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C6116 | 1-136-479-11 | FILM | 0.001UF | 2.00% | 50V |
| C6117 | 1-163-037-11 | CERAMIC CHIP | 0.022UF | 10.00% | 50V |
| C6118 | 1-107-725-11 | CERAMIC CHIP | 0.1UF | 10.00% | 16V |
| C6119 | 1-162-960-11 | CERAMIC CHIP | 220PF | 10.00% | 50V |
| C6201 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5.00% | 50V |
| C6202 | 1-162-964-11 | CERAMIC CHIP | 0.001UF | 10.00% | 50V |
| C6203 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5.00% | 50V |
| C6204 | 1-162-962-11 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C6205 | 1-136-479-11 | FILM | 0.001UF | 2.00% | 50V |
| C6206 | 1-136-479-11 | FILM | 0.001UF | 2.00% | 50V |

| REF NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| C6208 | 1-126-968-11 | ELECT | 100UF | 20.00% | 50V |
| C6209 | 1-104-663-11 | ELECT | 33UF | 20.00% | 25V |
| C6210 | 1-107-725-11 | CERAMIC CHIP | 0.1UF | 10.00% | 16V |
| C6213 | 1-126-965-91 | ELECT | 22UF | 20.00% | 50V |
| C6214 | 1-162-970-11 | CERAMIC CHIP | 0.01UF | 10.00% | 25V |
| C6215 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C6216 | 1-104-760-11 | CERAMIC CHIP | 0.047UF | 10.00% | 50V |
| C6217 | 1-126-965-91 | ELECT | 22UF | 20.00% | 50V |
| C6218 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C6219 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C6220 | 1-107-725-11 | CERAMIC CHIP | 0.1UF | 10.00% | 16V |
| C6223 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C6227 | 1-107-725-11 | CERAMIC CHIP | 0.1UF | 10.00% | 16V |
| C6229 | 1-162-970-11 | CERAMIC CHIP | 0.01UF | 10.00% | 25V |
| C6230 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C6233 | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C6306 | 1-104-760-11 | CERAMIC CHIP | 0.047UF | 10.00% | 50V |
| C6402 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5.00% | 50V |
| C6403 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5.00% | 50V |
| C6404 | 1-115-416-11 | CERAMIC CHIP | 0.001UF | 5.00% | 25V |
| C6406 | 1-162-970-11 | CERAMIC CHIP | 0.01UF | 10.00% | 25V |
| C6408 | 1-162-964-11 | CERAMIC CHIP | 0.001UF | 10.00% | 50V |
| C6409 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C6410 | 1-162-970-11 | CERAMIC CHIP | 0.01UF | 10.00% | 25V |
| C6411 | 1-107-725-11 | CERAMIC CHIP | 0.1UF | 10.00% | 16V |
| C6412 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C6413 | 1-162-970-11 | CERAMIC CHIP | 0.01UF | 10.00% | 25V |
| C6414 | 1-126-960-11 | ELECT | 1UF | 20.00% | 50V |
| C6416 | 1-126-934-11 | ELECT | 220UF | 20.00% | 16V |
| C6422 | 1-163-037-11 | CERAMIC CHIP | 0.022UF | 10.00% | 50V |
| C6423 | 1-162-970-11 | CERAMIC CHIP | 0.01UF | 10.00% | 25V |
| C6424 | 1-136-479-11 | FILM | 0.001UF | 2.00% | 50V |
| C6427 | 1-162-964-11 | CERAMIC CHIP | 0.001UF | 10.00% | 50V |
| C6428 | 1-163-259-91 | CERAMIC CHIP | 220PF | 5.00% | 50V |
| C6429 | 1-126-965-91 | ELECT | 22UF | 20.00% | 50V |
| C6430 | 1-104-760-11 | CERAMIC CHIP | 0.047UF | 10.00% | 50V |
| C6432 | 1-107-823-11 | CERAMIC CHIP | 0.47UF | 10.00% | 16V |
| C6433 | 1-126-960-11 | ELECT | 1UF | 20.00% | 50V |
| C6434 | 1-107-725-11 | CERAMIC CHIP | 0.1UF | 10.00% | 16V |
| C6436 | 1-162-970-11 | CERAMIC CHIP | 0.01UF | 10.00% | 25V |
| C6437 | 1-162-970-11 | CERAMIC CHIP | 0.01UF | 10.00% | 25V |
| C6441 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C6442 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C6443 | 1-162-970-11 | CERAMIC CHIP | 0.01UF | 10.00% | 25V |
| C6444 | 1-136-479-11 | FILM | 0.001UF | 2.00% | 50V |
| C6445 | 1-162-964-11 | CERAMIC CHIP | 0.001UF | 10.00% | 50V |
| C6451 | 1-216-295-91 | SHORT CHIP | 0 | | |
| C6452 | 1-104-760-11 | CERAMIC CHIP | 0.047UF | 10.00% | 50V |
| C6454 | 1-208-854-11 | METAL CHIP | 1M | 0.5% | 1/10W |
| C6458 | 1-162-962-11 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C6459 | 1-115-340-11 | CERAMIC CHIP | 0.22UF | 10.00% | 25V |
| C6460 | 1-115-185-11 | CERAMIC CHIP | 0.033UF | 10.00% | 50V |
| C6505 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C6506 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C6508 | 1-136-495-11 | FILM | 0.068UF | 5.00% | 50V |
| C6510 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C6511 | 1-126-947-11 | ELECT | 47UF | 20.00% | 25V |
| C6512 | 1-162-970-11 | CERAMIC CHIP | 0.01UF | 10.00% | 25V |
| C6513 | 1-162-970-11 | CERAMIC CHIP | 0.01UF | 10.00% | 25V |
| C6514 | 1-126-964-11 | ELECT | 10UF | 20.00% | 50V |
| C6515 | 1-107-714-11 | ELECT | 10UF | 20.00% | 50V |
| C6516 | 1-104-760-11 | CERAMIC CHIP | 0.047UF | 10.00% | 50V |

| REF NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| C6517 | 1-107-714-11 | ELECT | 10UF | 20.00% | 50V |
| C6518 | 1-162-964-11 | CERAMIC CHIP | 0.001UF | 10.00% | 50V |
| | | <CONNECTOR> | | | |
| CN6100 | 1-793-498-11 | CONNECTOR, BOARD TO BOARD 50P | | | |
| CN6101 * | 1-564-523-11 | PLUG, CONNECTOR 8P | | | |
| CN6102 * | 1-564-518-11 | PLUG, CONNECTOR 3P | | | |
| | | <DIODE> | | | |
| D6102 | 8-719-987-87 | ERA85-009 | | | |
| D6103 | 8-719-911-19 | 1SS119-25 | | | |
| D6104 | 8-719-911-19 | 1SS119-25 | | | |
| D6105 | 8-719-063-73 | DIODE D1NL20U-TR | | | |
| D6201 | 8-719-081-97 | MMDL914T1 | | | |
| D6201 | 8-719-404-50 | MA111-TX | | | |
| D6202 | 8-719-081-97 | MMDL914T1 | | | |
| D6203 | 8-719-081-97 | MMDL914T1 | | | |
| D6204 | 8-719-081-97 | MMDL914T1 | | | |
| D6207 | 1-218-851-11 | METAL CHIP | 1.5K | 0.5% | 1/10W |
| D6208 | 8-719-081-97 | MMDL914T1 | | | |
| D6209 | 8-719-081-97 | MMDL914T1 | | | |
| D6210 | 1-216-295-91 | SHORT CHIP | 0 | | |
| D6211 | 1-216-295-91 | SHORT CHIP | 0 | | |
| D6212 | 8-719-081-97 | MMDL914T1 | | | |
| D6213 | 8-719-081-97 | MMDL914T1 | | | |
| D6214 | 8-719-081-97 | MMDL914T1 | | | |
| D6215 | 1-216-295-91 | SHORT CHIP | 0 | | |
| D6216 | 1-216-295-91 | SHORT CHIP | 0 | | |
| D6217 | 1-216-295-91 | SHORT CHIP | 0 | | |
| D6218 | 1-216-295-91 | SHORT CHIP | 0 | | |
| D6219 | 1-216-295-91 | SHORT CHIP | 0 | | |
| D6401 | 8-719-081-97 | MMDL914T1 | | | |
| D6402 | 8-719-081-97 | MMDL914T1 | | | |
| D6403 | 8-719-081-97 | MMDL914T1 | | | |
| D6404 | 1-216-295-91 | SHORT CHIP | 0 | | |
| D6405 | 8-719-081-97 | MMDL914T1 | | | |
| D6409 | 8-719-081-97 | MMDL914T1 | | | |
| D6411 | 8-719-081-97 | MMDL914T1 | | | |
| D6413 | 8-719-081-97 | MMDL914T1 | | | |
| D6423 | 8-719-081-97 | MMDL914T1 | | | |
| D6424 | 1-216-295-91 | SHORT CHIP | 0 | | |
| D6425 | 8-719-988-61 | 1SS355TE-17 | | | |
| D6426 | 8-719-988-61 | 1SS355TE-17 | | | |
| D6427 | 8-719-988-61 | 1SS355TE-17 | | | |
| D6428 | 8-719-081-97 | MMDL914T1 | | | |
| D6430 | 8-719-081-97 | MMDL914T1 | | | |
| D6501 | 8-719-081-97 | MMDL914T1 | | | |
| D6502 | 8-719-081-97 | MMDL914T1 | | | |
| D6503 | 8-719-988-61 | 1SS355TE-17 | | | |
| D6504 | 8-719-988-61 | 1SS355TE-17 | | | |
| D6505 | 8-719-988-61 | 1SS355TE-17 | | | |
| | | <IC> | | | |
| IC6100 | 6-701-598-01 | IC UPC5023CS-184 | | | |
| IC6201 | 8-759-659-67 | LA6393DLL | | | |
| IC6202 | 8-759-231-53 | TA7805S | | | |
| IC6205 | 8-752-072-81 | CXA1875AM | | | |
| IC6206 | 8-759-700-69 | NJM79L12A | | | |

| REF NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| IC6401 | 8-759-659-67 | LA6393DLL | |
| IC6402 | 6-701-847-01 | IC UPC1898CT-A | |
| IC6501 | 8-759-822-38 | LA6510 | |
| | | <CHIP CONDUCTOR> | |
| JR6100 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6101 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6102 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6103 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6200 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6201 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6202 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6204 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6401 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6402 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6403 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6404 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6405 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6406 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6407 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6408 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6409 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6410 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6411 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6413 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6414 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6416 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6417 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6418 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6420 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6421 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6422 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6423 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6424 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6425 | 1-216-295-91 | SHORT CHIP 0 | |
| JR6426 | 1-216-295-91 | SHORT CHIP 0 | |
| | | <COIL> | |
| L6101 | 1-416-920-11 | INDUCTOR 10MH | |
| L6102 | 1-406-989-21 | INDUCTOR 10MH | |
| L6201 | 1-412-537-31 | INDUCTOR 100UH | |
| | | <TRANSISTOR> | |
| Q6001 | 1-801-806-11 | TR DTC144EKA (KV-DR29M39/M69/M89) | |
| Q6001 | 8-729-421-19 | UN2213 (KV-DR29M63) | |
| Q6002 | 8-729-422-33 | 2SD601A-Q-TX (KV-DR29M39/M69/M89) | |
| Q6002 | 8-729-010-25 | MSD601-RT1 (KV-DR29M63) | |
| Q6103 | 8-729-140-93 | 2SB733-34 | |
| Q6104 | 8-729-046-33 | IRF720-LF49 | |
| Q6105 | 8-729-216-22 | 2SA1162-G | |
| Q6106 | 8-729-010-25 | MSD601-RT1 | |
| Q6107 | 8-729-804-87 | 2SB1142-T | |
| Q6108 | 8-729-010-25 | MSD601-RT1 | |
| Q6201 | 8-729-010-25 | MSD601-RT1 | |
| Q6202 | 8-729-010-25 | MSD601-RT1 | |
| Q6203 | 8-729-010-25 | MSD601-RT1 | |
| Q6205 | 8-729-010-25 | MSD601-RT1 | |
| Q6206 | 8-729-010-05 | MSB709-RT1 | |

# D5

| REF NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| Q6207 | 8-729-421-19 | UN2213 | |
| Q6208 | 8-729-216-22 | 2SA1162-G | |
| Q6209 | 8-729-010-05 | MSB709-RT1 | |
| Q6212 | 8-729-216-22 | 2SA1162-G | |
| Q6213 | 8-729-010-25 | MSD601-RT1 | |
| Q6215 | 8-729-010-25 | MSD601-RT1 | |
| Q6216 | 8-729-216-22 | 2SA1162-G | |
| Q6218 | 8-729-010-25 | MSD601-RT1 | |
| Q6219 | 8-729-422-33 | 2SD601A-Q-TX (KV-DR29M39/M69/M89) | |
| Q6219 | 8-729-010-25 | MSD601-RT1 (KV-DR29M63) | |
| Q6220 | 8-729-010-25 | MSD601-RT1 | |
| Q6221 | 8-729-010-25 | MSD601-RT1 | |
| Q6222 | 8-729-216-22 | 2SA1162-G | |
| Q6401 | 8-729-010-25 | MSD601-RT1 | |
| Q6402 | 8-729-216-22 | 2SA1162-G | |
| Q6409 | 8-729-216-22 | 2SA1162-G | |
| Q6410 | 8-729-010-25 | MSD601-RT1 | |
| Q6412 | 8-729-216-22 | 2SA1162-G | |
| Q6413 | 8-729-010-25 | MSD601-RT1 | |
| Q6414 | 8-729-216-22 | 2SA1162-G | |
| Q6415 | 8-729-010-25 | MSD601-RT1 | |
| Q6417 | 8-729-010-25 | MSD601-RT1 | |
| Q6418 | 8-729-216-22 | 2SA1162-G | |
| Q6420 | 8-729-216-22 | 2SA1162-G | |
| Q6422 | 8-729-216-22 | 2SA1162-G | |
| Q6423 | 8-729-216-22 | 2SA1162-G | |
| Q6424 | 8-729-010-25 | MSD601-RT1 | |
| Q6425 | 8-729-010-25 | MSD601-RT1 | |
| Q6437 | 8-729-010-25 | MSD601-RT1 | |
| Q6438 | 8-729-216-22 | 2SA1162-G | |
| Q6440 | 8-729-422-33 | 2SD601A-Q-TX (KV-DR29M39/M69/M89) | |
| Q6440 | 8-729-010-25 | MSD601-RT1 (KV-DR29M63) | |
| Q6441 | 8-729-216-22 | 2SA1162-G | |
| Q6501 | 8-729-216-22 | 2SA1162-G | |
| Q6502 | 8-729-216-22 | 2SA1162-G | |
| Q6503 | 8-729-010-25 | MSD601-RT1 | |
| Q6504 | 8-729-010-25 | MSD601-RT1 | |
| Q6505 | 8-729-010-25 | MSD601-RT1 | |
| Q6506 | 8-729-421-22 | UN2211 | |
| Q6507 | 8-729-421-22 | UN2211 | |
| Q6508 | 8-729-422-33 | 2SD601A-Q-TX (KV-DR29M39/M69/M89) | |
| Q6508 | 8-729-010-25 | MSD601-RT1 (KV-DR29M63) | |
| Q6509 | 8-729-010-25 | MSD601-RT1 | |
| Q6510 | 8-729-216-22 | 2SA1162-G | |

<RESISTOR>

| | | | | | |
|---|---|---|---|---|---|
| R6001 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R6002 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6003 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R6006 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R6007 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R6102 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R6104 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R6107 | 1-216-061-91 | RES-CHIP | 3.3K | 5% | 1/10W |
| R6108 | 1-208-796-11 | METAL CHIP | 3.9K | 0.5% | 1/10W |
| R6109 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6111 | 1-208-808-11 | METAL CHIP | 12K | 0.5% | 1/10W |
| R6112 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R6113 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R6114 | 1-208-798-11 | METAL CHIP | 4.7K | 0.5% | 1/10W |
| R6115 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| R6116 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R6117 | 1-208-778-11 | METAL CHIP | 680 | 0.5% | 1/10W |
| R6118 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R6119 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R6120 | 1-208-818-11 | METAL CHIP | 33K | 0.5% | 1/10W |
| R6121 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R6122 | 1-215-860-11 | METAL OXIDE | 33 | 5% | 1W |
| R6127 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R6128 | 1-208-792-11 | METAL CHIP | 2.7K | 0.5% | 1/10W |
| R6129 | 1-208-776-11 | METAL CHIP | 560 | 0.5% | 1/10W |
| R6130 | 1-208-814-91 | METAL CHIP | 22K | 0.5% | 1/10W |
| R6131 | 1-208-812-11 | METAL CHIP | 18K | 0.5% | 1/10W |
| R6132 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R6133 | 1-208-822-11 | METAL CHIP | 47K | 0.5% | 1/10W |
| R6136 | 1-208-814-91 | METAL CHIP | 22K | 0.5% | 1/10W |
| R6137 | 1-208-814-91 | METAL CHIP | 22K | 0.5% | 1/10W |
| R6138 | 1-208-788-11 | METAL CHIP | 1.8K | 0.5% | 1/10W |
| R6140 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R6141 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6142 | 1-208-792-11 | METAL CHIP | 2.7K | 0.5% | 1/10W |
| R6143 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6148 | 1-208-820-11 | METAL CHIP | 39K | 0.5% | 1/10W |
| R6201 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6203 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6204 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R6205 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6206 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6207 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6208 | 1-216-639-11 | METAL CHIP | 330 | 0.5% | 1/10W |
| R6209 | 1-216-037-00 | RES-CHIP | 330 | 5% | 1/10W |
| R6210 | 1-208-812-11 | METAL CHIP | 18K | 0.5% | 1/10W |
| R6213 | 1-208-818-11 | METAL CHIP | 33K | 0.5% | 1/10W |
| R6215 | 1-208-814-91 | METAL CHIP | 22K | 0.5% | 1/10W |
| R6216 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R6217 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6218 | 1-216-125-00 | RES-CHIP | 1.5M | 5% | 1/10W |
| R6219 | 1-208-830-11 | METAL CHIP | 100K | 0.5% | 1/10W |
| R6220 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R6221 | 1-208-822-11 | METAL CHIP | 47K | 0.5% | 1/10W |
| R6222 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6224 | 1-216-085-91 | RES-CHIP | 33K | 5% | 1/10W |
| R6225 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6227 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6230 | 1-208-846-11 | METAL CHIP | 470K | 0.5% | 1/10W |
| R6232 | 1-208-814-91 | METAL CHIP | 22K | 0.5% | 1/10W |
| R6234 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R6237 | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W |
| R6248 | 1-208-814-91 | METAL CHIP | 22K | 0.5% | 1/10W |
| R6249 | 1-208-804-11 | METAL CHIP | 8.2K | 0.5% | 1/10W |
| R6250 | 1-208-814-91 | METAL CHIP | 22K | 0.5% | 1/10W |
| R6253 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R6254 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R6255 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R6256 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R6266 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R6267 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R6270 | 1-208-814-91 | METAL CHIP | 22K | 0.5% | 1/10W |
| R6271 | 1-218-760-11 | METAL CHIP | 220K | 0.5% | 1/10W |
| R6272 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R6273 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R6274 | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W |
| R6278 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |

D5

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| R6281 | 1-208-832-11 | METAL CHIP | 120K | 0.5% | 1/10W |
| R6283 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6286 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R6287 | 1-216-095-00 | RES-CHIP | 82K | 5% | 1/10W |
| R6288 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R6289 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6290 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6291 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6292 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R6293 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R6294 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R6295 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R6297 | 1-208-824-11 | METAL CHIP | 56K | 0.5% | 1/10W |
| R6298 | 1-208-824-11 | METAL CHIP | 56K | 0.5% | 1/10W |
| R6401 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6402 | 1-208-822-11 | METAL CHIP | 47K | 0.5% | 1/10W |
| R6403 | 1-208-840-11 | METAL CHIP | 270K | 0.5% | 1/10W |
| R6404 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6405 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6406 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R6407 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R6408 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6411 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6412 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6413 | 1-216-067-00 | RES-CHIP | 5.6K | 5% | 1/10W |
| R6414 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R6415 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6416 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6417 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6419 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R6422 | 1-216-121-11 | RES-CHIP | 1M | 5% | 1/10W |
| R6423 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R6424 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6428 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R6429 | 1-208-812-11 | METAL CHIP | 18K | 0.5% | 1/10W |
| R6430 | 1-214-913-00 | METAL | 100K | 1% | 1/2W |
| R6431 | 1-216-113-00 | RES-CHIP | 470K | 5% | 1/10W |
| R6432 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R6433 | 1-208-798-11 | METAL CHIP | 4.7K | 0.5% | 1/10W |
| R6434 | 1-208-798-11 | METAL CHIP | 4.7K | 0.5% | 1/10W |
| R6435 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6436 | 1-214-921-00 | METAL | 220K | 1% | 1/2W |
| R6437 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6439 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R6440 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6441 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R6445 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6446 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6447 | 1-214-905-11 | METAL | 47K | 1% | 1/2W |
| R6448 | 1-214-917-00 | METAL | 150K | 1% | 1/2W |
| R6449 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6450 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R6452 | 1-208-822-11 | METAL CHIP | 47K | 0.5% | 1/10W |
| R6453 | 1-260-119-11 | CARBON | 47K | 5% | 1/2W |
| R6455 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6456 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6457 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6459 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6461 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R6462 | 1-218-760-11 | METAL CHIP | 220K | 0.5% | 1/10W |

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| R6463 | 1-208-800-11 | METAL CHIP | 5.6K | 0.5% | 1/10W |
| R6464 | 1-208-846-11 | METAL CHIP | 470K | 0.5% | 1/10W |
| R6467 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6468 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6469 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6471 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6472 | 1-208-814-91 | METAL CHIP | 22K | 0.5% | 1/10W |
| R6473 | 1-208-814-91 | METAL CHIP | 22K | 0.5% | 1/10W |
| R6474 | 1-214-905-11 | METAL | 47K | 1% | 1/2W |
| R6475 | 1-208-798-11 | METAL CHIP | 4.7K | 0.5% | 1/10W |
| R6476 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6477 | 1-208-822-11 | METAL CHIP | 47K | 0.5% | 1/10W |
| R6480 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6481 | 1-218-760-11 | METAL CHIP | 220K | 0.5% | 1/10W |
| R6482 | 1-208-844-11 | METAL CHIP | 390K | 0.5% | 1/10W |
| R6483 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6484 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R6487 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R6489 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R6490 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R6491 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6492 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6493 | 1-208-822-11 | METAL CHIP | 47K | 0.5% | 1/10W |
| R6494 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R6495 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R6496 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6497 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R6498 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6499 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6500 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R6508 | 1-208-798-11 | METAL CHIP | 4.7K | 0.5% | 1/10W |
| R6509 | 1-208-840-11 | METAL CHIP | 270K | 0.5% | 1/10W |
| R6510 | 1-216-085-91 | RES-CHIP | 33K | 5% | 1/10W |
| R6511 | 1-216-085-91 | RES-CHIP | 33K | 5% | 1/10W |
| R6512 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W |
| R6513 | 1-216-085-91 | RES-CHIP | 33K | 5% | 1/10W |
| R6514 | 1-208-840-11 | METAL CHIP | 270K | 0.5% | 1/10W |
| R6515 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W |
| R6516 | 1-208-798-11 | METAL CHIP | 4.7K | 0.5% | 1/10W |
| R6517 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R6518 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R6519 | 1-208-812-11 | METAL CHIP | 18K | 0.5% | 1/10W |
| R6520 | 1-208-784-11 | METAL CHIP | 1.2K | 0.5% | 1/10W |
| R6521 | 1-208-790-11 | METAL CHIP | 2.2K | 0.5% | 1/10W |
| R6522 | 1-208-830-11 | METAL CHIP | 100K | 0.5% | 1/10W |
| R6523 | 1-215-429-00 | METAL | 2.2K | 1% | 1/4W |
| R6525 | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R6526 | 1-208-808-11 | METAL CHIP | 12K | 0.5% | 1/10W |
| R6527 | 1-208-822-11 | METAL CHIP | 47K | 0.5% | 1/10W |
| R6528 | 1-216-639-11 | METAL CHIP | 330 | 0.5% | 1/10W |
| R6529 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6530 | 1-208-814-91 | METAL CHIP | 22K | 0.5% | 1/10W |
| R6531 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R6532 | 1-208-804-11 | METAL CHIP | 8.2K | 0.5% | 1/10W |
| R6533 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6534 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6535 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R6536 | 1-208-812-11 | METAL CHIP | 18K | 0.5% | 1/10W |
| R6537 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6538 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6539 | 1-208-820-11 | METAL CHIP | 39K | 0.5% | 1/10W |

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

**H1** **F1** **D5**

| REF NO. | | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|---|
| R6540 | | 1-208-822-11 | METAL CHIP | 47K | 0.5% | 1/10W |
| R6541 | | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6542 | | 1-208-812-11 | METAL CHIP | 18K | 0.5% | 1/10W |
| R6543 | | 1-208-822-11 | METAL CHIP | 47K | 0.5% | 1/10W |
| R6544 | | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6545 | | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6546 | | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6551 | | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6552 | | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6553 | | 1-216-077-91 | RES-CHIP | 15K | 5% | 1/10W |
| R6554 | | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6555 | | 1-208-806-11 | METAL CHIP | 10K | 0.5% | 1/10W |
| R6557 | | 1-208-814-91 | METAL CHIP | 22K | 0.5% | 1/10W |
| R6558 | | 1-208-826-11 | METAL CHIP | 68K | 0.5% | 1/10W |
| R6602 | | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6604 | | 1-208-850-11 | METAL CHIP | 680K | 0.5% | 1/10W |
| R6608 | | 1-208-830-11 | METAL CHIP | 100K | 0.5% | 1/10W |
| R6609 | | 1-208-798-11 | METAL CHIP | 4.7K | 0.5% | 1/10W |
| R6610 | | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R6611 | | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R6612 | | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6614 | | 1-216-295-91 | SHORT CHIP | 0 | | |
| R6618 | | 1-162-962-11 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| R6620 | | 1-216-295-91 | SHORT CHIP | 0 | | |

**********

* A-1400-490-A F1 BOARD MOUNTED (KV-DR29M39)
* A-1400-691-A F1 BOARD MOUNTED (KV-DR29M63)
* A-1400-746-A F1 BOARD MOUNTED (KV-DR29M69/DR29M89)
**********

1-533-223-11 HOLDER, FUSE
* 4-374-846-01 COVER, CAPACITOR, CAP TYPE

<CAPACITOR>

| | | | | | | |
|---|---|---|---|---|---|---|
| C1601 | ⚠ | 1-104-708-51 | MYLAR | 0.47UF | 20.00% | 250V |
| C1602 | ⚠ | 1-109-835-51 | MYLAR | 0.68UF | 20.00% | 250V |
| C1603 | ⚠ | 1-117-703-51 | CERAMIC | 0.0047UF | 99% | 250V |

<CONNECTOR>

| | | | |
|---|---|---|---|
| CN1601 | | 1-580-843-11 | PIN, CONNECTOR (POWER) |
| CN1602 | | 1-580-843-11 | PIN, CONNECTOR (POWER) |
| CN1604 | | 1-695-915-11 | TAB (CONTACT) |

<FUSE>

| | | | |
|---|---|---|---|
| F1601 | ⚠ | 1-576-334-11 | FUSE, CYLINDERICAL (TIME-LAG) |

<FERRITE BEAD>

| | | | |
|---|---|---|---|
| FB1601 | | 1-410-397-21 | FERRITE 1.1UH |
| FB1602 | | 1-410-397-21 | FERRITE 1.1UH |
| FB1603 | | 1-410-397-21 | FERRITE 1.1UH |
| FB1604 | | 1-410-397-21 | FERRITE 1.1UH |

| REF NO. | | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|---|

<RESISTOR>

| | | | | | | |
|---|---|---|---|---|---|---|
| R1601 | ⚠ | 1-219-759-91 | CARBON | 1M | 5% | 1/2W |

<TRANSFORMER>

| | | | |
|---|---|---|---|
| T1601 | ⚠ | 1-433-900-21 | TRANSFORMER, LINE FILTER |
| T1602 | ⚠ | 1-433-900-21 | TRANSFORMER, LINE FILTER |

<VARISTOR>

| | | |
|---|---|---|
| VDR161 | 1-803-830-11 | VARISTOR (ERZV14D621) |

**********

* A-1400-491-A H1 BOARD MOUNTED (KV-DR29M39/DR29M69/DR29M89)
* A-1400-692-A H1 BOARD MOUNTED (KV-DR29M63)
**********

<CAPACITOR>

| | | | | | |
|---|---|---|---|---|---|
| C1910 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C1930 | 1-136-153-00 | FILM | 0.01UF | 5.00% | 50V |
| C1932 | 1-136-153-00 | FILM | 0.01UF | 5.00% | 50V |
| C1935 | 1-102-824-00 | CERAMIC | 470PF | 5.00% | 50V |
| C1938 | 1-102-824-00 | CERAMIC | 470PF | 5.00% | 50V |

<CONNECTOR>

| | | | |
|---|---|---|---|
| CN1905 | * | 1-764-333-11 | PLUG, CONNECTOR 10P |
| CN1906 | | 1-564-509-11 | PLUG, CONNECTOR 6P |
| CN1932 | * | 1-564-509-11 | PLUG, CONNECTOR 6P |
| CN1934 | * | 1-764-333-11 | PLUG, CONNECTOR 10P |

<DIODE>

| | | |
|---|---|---|
| D1905 | 8-719-070-16 | NNCD9.1A-T1 |
| D1907 | 8-719-070-16 | NNCD9.1A-T1 |
| D1930 | 8-719-929-15 | HZS9.1NB2 |
| D1944 | 8-719-070-16 | NNCD9.1A-T1 |
| D1945 | 8-719-911-19 | 1SS119-25 |
| D1946 | 8-719-911-19 | 1SS119-25 |

<JACK>

| | | |
|---|---|---|
| J1931 | 1-770-786-11 | JACK |
| J1932 | 1-784-646-11 | TERMINAL, S |
| J1933 | 1-770-329-11 | JACK, PIN 3P |

<COIL>

| | | | |
|---|---|---|---|
| L1931 | 1-414-856-11 | INDUCTOR | 10UH |
| L1932 | 1-414-856-11 | INDUCTOR | 10UH |

<TRANSISTOR>

| | | |
|---|---|---|
| Q1901 | 8-729-030-02 | DTC144ESA |
| Q1902 | 8-729-030-02 | DTC144ESA |

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

H1 H2 J P

| REF NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| | | <RESISTOR> | | | |
| R1911 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W |
| R1913 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R1914 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W |
| R1915 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R1916 | 1-249-401-11 | CARBON | 47 | 5% | 1/4W |
| R1917 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R1920 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R1921 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R1933 | 1-247-895-91 | CARBON | 470K | 5% | 1/4W |
| R1934 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R1935 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R1936 | 1-247-895-91 | CARBON | 470K | 5% | 1/4W |
| R1952 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R1970 | 1-249-426-11 | CARBON | 5.6K | 5% | 1/4W |
| R1971 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W |
| R1972 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R1973 | 1-249-420-11 | CARBON | 1.8K | 5% | 1/4W |
| R1974 | 1-247-843-11 | CARBON | 3.3K | 5% | 1/4W |
| | | <SWITCH> | | | |
| S1972 | 1-692-431-21 | SWITCH, TACTILE | | | |
| S1973 | 1-692-431-21 | SWITCH, TACTILE | | | |
| S1974 | 1-692-431-21 | SWITCH, TACTILE | | | |
| S1975 | 1-692-431-21 | SWITCH, TACTILE | | | |
| S1976 | 1-692-431-21 | SWITCH, TACTILE | | | |
| S1977 | 1-692-431-21 | SWITCH, TACTILE | | | |
| S1978 | 1-692-431-21 | SWITCH, TACTILE | | | |

**********

| | | | | | |
|---|---|---|---|---|---|
| * | A-1400-492-A | H2 BOARD MOUNTED (KV-DR29M39//DR29M69/DR29M89) | | | |
| * | A-1400-693-A | H2 BOARD MOUNTED (KV-DR29M63) | | | |
| | | ********** | | | |
| * | 4-055-304-01 | HOLDER, LED | | | |
| | | <CAPACITOR> | | | |
| C1911 | 1-126-947-11 | ELECT | 47UF | 20.00% | 16V |
| C1912 | 1-102-824-00 | CERAMIC | 470PF | 5.00% | 50V |
| | | <CONNECTOR> | | | |
| CN1651 * | 1-580-844-11 | PIN, CONNECTOR (POWER) | | | |
| CN1652 * | 1-580-844-11 | PIN, CONNECTOR (POWER) | | | |
| CN1907 * | 1-564-521-11 | PLUG, CONNECTOR 6P | | | |
| | | <DIODE> | | | |
| D1906 | 8-719-083-18 | DIODE SPB-25MVWF | | | |
| | | <IC> | | | |
| IC1901 | 8-742-134-01 | SBX1981-51RP | | | |

| REF NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| | | <SWITCH> | | | |
| S1651 | ⚠ 1-571-433-31 | SWITCH, PUSH (AC POWER) | | | |

**********

| | | | | | |
|---|---|---|---|---|---|
| * | A-1400-500-A | J BOARD MOUNTED (KV-DR29M39/DR29M69/DR29M89) | | | |
| * | A-1400-695-A | J BOARD MOUNTED (KV-DR29M63) | | | |
| | | ********** | | | |
| | | <CAPACITOR> | | | |
| C2410 | 1-126-967-11 | ELECT | 47UF | 20.00% | 50V |
| C2411 | 1-126-967-11 | ELECT | 47UF | 20.00% | 50V |
| C2412 | 1-126-967-11 | ELECT | 47UF | 20.00% | 50V |
| C2413 | 1-102-112-00 | CERAMIC | 330PF | 10.00% | 50V |
| C2414 | 1-102-112-00 | CERAMIC | 330PF | 10.00% | 50V |
| C2418 | 1-126-960-11 | ELECT | 1UF | 20.00% | 50V |
| C2419 | 1-126-960-11 | ELECT | 1UF | 20.00% | 50V |
| | | <CONNECTOR> | | | |
| CN2410 * | 1-564-523-11 | PLUG, CONNECTOR 8P | | | |
| | | <DIODE> | | | |
| D2410 | 8-719-929-15 | HZS9.1NB2 | | | |
| D2411 | 8-719-929-15 | HZS9.1NB2 | | | |
| D2412 | 8-719-929-15 | HZS9.1NB2 | | | |
| D2414 | 8-719-929-15 | HZS9.1NB2 | | | |
| D2415 | 8-719-929-15 | HZS9.1NB2 | | | |
| | | <JACK> | | | |
| J2410 | 1-784-623-11 | BLOCK, PIN JACK 5P | | | |
| | | <RESISTOR> | | | |
| R2410 | 1-247-804-11 | CARBON | 75 | 5% | 1/4W |
| R2411 | 1-247-804-11 | CARBON | 75 | 5% | 1/4W |
| R2412 | 1-247-804-11 | CARBON | 75 | 5% | 1/4W |
| R2414 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W |
| R2415 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R2417 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W |
| R2418 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |

**********

| | | | | | |
|---|---|---|---|---|---|
| * | A-1300-299-A | P BOARD COMPLETE (KV-DR29M39/DR29M69/DR29M89) | | | |
| | | ********** | | | |
| | | <CAPACITOR> | | | |
| C8801 | 1-104-665-11 | ELECT | 100UF | 20.00% | 10V |
| C8802 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8803 | 1-162-915-11 | CERAMIC CHIP | 10PF | 0.50PF | 50V |
| C8804 | 1-162-915-11 | CERAMIC CHIP | 10PF | 0.50PF | 50V |
| C8805 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |

**P**

| REF NO. | PART NO. | DESCRIPTION | | REMARK | |
|---|---|---|---|---|---|
| C8806 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8807 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8808 | 1-126-967-11 | ELECT | 47UF | 20.00% | 50V |
| C8809 | 1-126-967-11 | ELECT | 47UF | 20.00% | 50V |
| C8810 | 1-104-665-11 | ELECT | 100UF | 20.00% | 10V |
| C8811 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8812 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8813 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8814 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8815 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8816 | 1-104-665-11 | ELECT | 100UF | 20.00% | 10V |
| C8817 | 1-104-665-11 | ELECT | 100UF | 20.00% | 10V |
| C8818 | 1-104-665-11 | ELECT | 100UF | 20.00% | 10V |
| C8819 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8820 | 1-104-665-11 | ELECT | 100UF | 20.00% | 10V |
| C8821 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8822 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8823 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8824 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C8825 | 1-117-720-11 | CERAMIC CHIP | 4.7UF | | 10V |
| C8826 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8827 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8828 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8829 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8830 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8831 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8832 | 1-162-926-11 | CERAMIC CHIP | 82PF | 5.00% | 50V |
| C8834 | 1-164-004-11 | CERAMIC CHIP | 0.1UF | 10.00% | 25V |
| C8835 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| | | <CONNECTOR> | | | |
| CN8801 | 1-793-496-11 | CONNECTOR, BOARD TO BOARD 20P | | | |
| | | <DIODE> | | | |
| D8801 | 8-719-081-97 | MMDL914T1 | | | |
| | | <FILTER> | | | |
| FL8802 | 1-236-071-11 | ENCAPSULATED COMPONENT | | | |
| FL8803 | 1-236-071-11 | ENCAPSULATED COMPONENT | | | |
| FL8804 | 1-236-071-11 | ENCAPSULATED COMPONENT | | | |
| FL8805 | 1-236-071-11 | ENCAPSULATED COMPONENT | | | |
| FL8808 | 1-236-071-11 | ENCAPSULATED COMPONENT | | | |
| | | <IC> | | | |
| IC8801 | 8-759-830-24 | SDA9588XB23 | | | |
| IC8802 | 8-759-460-72 | BA033FP-E2 | | | |
| | | <COIL> | | | |
| L8801 | 1-414-856-11 | INDUCTOR | 10UH | | |
| L8806 | 1-412-537-31 | INDUCTOR | 100UH | | |
| L8807 | 1-414-856-11 | INDUCTOR | 10UH | | |
| L8809 | 1-408-412-00 | INDUCTOR | 18UH | | |
| | | <TRANSISTOR> | | | |
| Q8801 | 8-729-010-05 | MSB709-RT1 | | | |
| Q8802 | 8-729-010-05 | MSB709-RT1 | | | |
| Q8803 | 8-729-010-05 | MSB709-RT1 | | | |
| Q8804 | 8-729-010-05 | MSB709-RT1 | | | |
| Q8805 | 8-729-010-05 | MSB709-RT1 | | | |
| Q8806 | 8-729-230-49 | 2SC2712-YG | | | |
| Q8807 | 8-729-230-49 | 2SC2712-YG | | | |
| Q8808 | 8-729-010-05 | MSB709-RT1 | | | |
| Q8809 | 8-729-010-05 | MSB709-RT1 | | | |
| Q8810 | 8-729-010-05 | MSB709-RT1 | | | |
| Q8811 | 8-729-010-05 | MSB709-RT1 | | | |
| Q8812 | 8-729-230-49 | 2SC2712-YG | | | |
| | | <RESISTOR> | | | |
| R8801 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R8802 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R8803 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8804 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8805 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R8806 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8807 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8808 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8809 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8810 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8811 | 1-216-639-11 | METAL CHIP | 330 | 0.5% | 1/10W |
| R8812 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8815 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8816 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8817 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8818 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8819 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8820 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8821 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8822 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8823 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8824 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8825 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8826 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8827 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8828 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8829 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8830 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8831 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R8832 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R8833 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R8834 | 1-216-089-91 | RES-CHIP | 47K | 5% | 1/10W |
| R8835 | 1-216-047-91 | RES-CHIP | 820 | 5% | 1/10W |
| R8836 | 1-216-047-91 | RES-CHIP | 820 | 5% | 1/10W |
| R8837 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8838 | 1-216-053-00 | RES-CHIP | 1.5K | 5% | 1/10W |
| R8839 | 1-216-053-00 | RES-CHIP | 1.5K | 5% | 1/10W |
| R8840 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8841 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R8842 | 1-216-097-11 | RES-CHIP | 100K | 5% | 1/10W |
| R8843 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8844 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8845 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8846 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R8847 | 1-216-121-11 | RES-CHIP | 1M | 5% | 1/10W |
| R8848 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R8849 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R8850 | 1-216-051-00 | RES-CHIP | 1.2K | 5% | 1/10W |

P V2 VM

| REF NO. | PART NO. | DESCRIPTION | | | |
|---|---|---|---|---|---|
| | | <CRYSTAL> | | | |
| X8801 | 1-781-946-21 | VIBRATOR, CRYSTAL | | | |
| ********** | | | | | |
| | A-1400-711-A | V2 BOARD MOUNTED (KV-DR29M39/DR29M69/DR29M89) ********** | | | |
| | | <CAPACITOR> | | | |
| C5802 | 1-164-360-11 | CERAMIC CHIP | 0.1UF | | 16V |
| C5805 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C5806 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C5815 | 1-107-826-11 | CERAMIC CHIP | 0.1UF | 10.00% | 16V |
| C5816 | 1-126-963-11 | ELECT | 4.7UF | 20.00% | 50V |
| C5817 | 1-107-826-11 | CERAMIC CHIP | 0.1UF | 10.00% | 16V |
| C5818 | 1-162-924-11 | CERAMIC CHIP | 56PF | 5.00% | 50V |
| C5820 | 1-162-924-11 | CERAMIC CHIP | 56PF | 5.00% | 50V |
| C5821 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C5822 | 1-162-964-11 | CERAMIC CHIP | 0.001UF | 10.00% | 50V |
| C5823 | 1-126-963-11 | ELECT | 4.7UF | 20.00% | 50V |
| C5826 | 1-126-963-11 | ELECT | 4.7UF | 20.00% | 50V |
| C5830 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C5831 | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C5835 | 1-163-038-91 | CERAMIC CHIP | 0.1UF | | 25V |
| C5837 | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C5852 | 1-162-995-11 | CERAMIC CHIP | 0.022UF | | 50V |
| C5853 | 1-126-963-11 | ELECT | 4.7UF | 20.00% | 50V |
| | | <CONNECTOR> | | | |
| CN5801 * | 1-774-812-11 | CONNECTOR, BOARD TO BOARD 7P | | | |
| CN5803 * | 1-774-812-11 | CONNECTOR, BOARD TO BOARD 7P | | | |
| | | <DIODE> | | | |
| D5802 | 8-719-050-37 | DIODE M1MA152WA-T1 | | | |
| D5803 | 8-719-045-99 | RD2.2M-T1B | | | |
| | | <FERRITE BEAD> | | | |
| FB5801 | 1-410-397-21 | FERRITE | 1.1UH | | |
| FB5803 | 1-410-397-21 | FERRITE | 1.1UH | | |
| FB5804 | 1-410-397-21 | FERRITE | 1.1UH | | |
| FB5805 | 1-410-397-21 | FERRITE | 1.1UH | | |
| | | <IC> | | | |
| IC5801 | 6-700-607-01 | IC SAA5264PS/M3 | | | |
| IC5802 | 8-759-828-44 | NJM2870F33(TE2) | | | |
| | | <CHIP CONDUCTOR> | | | |
| JR5802 | 1-216-295-91 | SHORT CHIP | 0 | | |
| JR5803 | 1-216-295-91 | SHORT CHIP | 0 | | |
| JR5804 | 1-216-295-91 | SHORT CHIP | 0 | | |
| JR5805 | 1-216-295-91 | SHORT CHIP | 0 | | |
| JR5811 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| JR5812 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| JR5813 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| | | <TRANSISTOR> | | | |
| Q5801 | 8-729-230-49 | 2SC2712-YG | | | |
| Q5803 | 8-729-230-49 | 2SC2712-YG | | | |
| Q5810 | 8-729-230-49 | 2SC2712-YG | | | |
| | | <RESISTOR> | | | |
| R5821 | 1-216-082-00 | RES-CHIP | 24K | 5% | 1/10W |
| R5822 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R5828 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R5829 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R5830 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5831 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5839 | 1-216-655-11 | METAL CHIP | 1.5K | 0.5% | 1/10W |
| R5841 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R5842 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5843 | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5845 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R5846 | 1-216-049-11 | RES-CHIP | 1K | 5% | 1/10W |
| R5851 | 1-216-057-00 | RES-CHIP | 2.2K | 5% | 1/10W |
| R5853 | 1-216-830-11 | RES-CHIP | 5.6K | 5% | 1/10W |
| R5857 | 1-216-081-00 | RES-CHIP | 22K | 5% | 1/10W |
| R5859 | 1-216-029-00 | RES-CHIP | 150 | 5% | 1/10W |
| R5860 | 1-216-029-00 | RES-CHIP | 150 | 5% | 1/10W |
| R5862 | 1-216-029-00 | RES-CHIP | 150 | 5% | 1/10W |
| R5864 | 1-216-041-00 | RES-CHIP | 470 | 5% | 1/10W |
| R5866 | 1-216-449-11 | METAL OXIDE | 56 | 5% | 2W |
| R5871 | 1-216-037-00 | RES-CHIP | 330 | 5% | 1/10W |
| R5878 | 1-216-073-91 | RES-CHIP | 10K | 5% | 1/10W |
| R5884 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R5892 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| R5899 | 1-216-025-11 | RES-CHIP | 100 | 5% | 1/10W |
| | | <CRYSTAL> | | | |
| X5801 | 1-578-774-11 | VIBRATOR, CRYSTAL | | | |
| ********** | | | | | |
| | A-1400-499-A | VM BOARD MOUNTED (KV-DR29M39/DR29M69/DR29M89) | | | |
| | A-1400-694-A | VM BOARD MOUNTED (KV-DR29M63) ********** | | | |
| | 4-382-854-11 | SCREW (M3X10), P, SW (+) | | | |
| | | <CAPACITOR> | | | |
| C5401 | 1-126-935-11 | ELECT | 470UF | 20.00% | 16V |
| C5402 | 1-113-619-11 | CERAMIC CHIP | 0.47UF | | 10V |
| C5403 | 1-126-935-11 | ELECT | 470UF | 20.00% | 6.3V |
| C5405 | 1-126-933-11 | ELECT | 100UF | 20.00% | 16V |
| C5406 | 1-126-935-11 | ELECT | 470UF | 20.00% | 6.3V |
| C5407 | 1-107-364-11 | MYLAR | 0.01UF | 10.00% | 200V |
| C5408 | 1-107-364-11 | MYLAR | 0.01UF | 10.00% | 200V |
| C5409 | 1-107-649-11 | ELECT | 2.2UF | 20.00% | 250V |
| C5410 | 1-130-471-00 | MYLAR | 0.001UF | 5.00% | 50V |
| C5411 | 1-130-471-00 | MYLAR | 0.001UF | 5.00% | 50V |

**VM**

| REF NO. | | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|---|
| C5412 | | 1-126-935-11 | ELECT | 470UF | 20.00% | 16V |
| C5413 | | 1-107-648-91 | ELECT | 100UF | 20.00% | 160V |
| C5415 | | 1-104-999-11 | MYLAR | 0.1UF | 10.00% | 200V |
| C5417 | | 1-101-821-00 | CERAMIC | 0.0022UF | | 500V |
| C5418 | | 1-107-638-11 | ELECT | 33UF | 20.00% | 160V |
| | | | <CONNECTOR> | | | |
| CN5401 | * | 1-770-723-11 | CONNECTOR, BOARD TO BOARD 8P | | | |
| CN5402 | | 1-764-334-11 | PLUG, CONNECTOR 11P | | | |
| | | | <DIODE> | | | |
| D5400 | | 8-719-404-50 | MA111-TX | | | |
| D5401 | | 8-719-510-02 | D1NS4 (KV-DR29M39/M69/M89) | | | |
| D5401 | | 8-719-210-21 | 11EQS04 (KV-DR29M63) | | | |
| D5402 | | 8-719-911-19 | 1SS119-25 (KV-DR29M39/M69/M89) | | | |
| D5402 | | 8-719-991-33 | 1SS133T-77 (KV-DR29M63) | | | |
| D5403 | | 8-719-911-19 | 1SS119-25 (KV-DR29M39/M69/M89) | | | |
| D5403 | | 8-719-991-33 | 1SS133T-77 (KV-DR29M63) | | | |
| D5404 | | 8-719-911-19 | 1SS119-25 (KV-DR29M39/M69/M89) | | | |
| D5404 | | 8-719-991-33 | 1SS133T-77 (KV-DR29M63) | | | |
| D5405 | | 8-719-110-56 | RD22ES-B1 | | | |
| D5406 | | 8-719-110-56 | RD22ES-B1 | | | |
| | | | <COIL> | | | |
| L5400 | | 1-412-525-31 | INDUCTOR | 10UH | | |
| | | | <FILTER> | | | |
| LP5401 | * | 4-042-408-01 | PIN, COATING LEAD | | | |
| | | | <TRANSISTOR> | | | |
| Q5400 | | 8-729-119-78 | 2SC2785-HFE | | | |
| Q5401 | | 8-729-119-78 | 2SC2785-HFE | | | |
| Q5402 | | 8-729-119-78 | 2SC2785-HFE | | | |
| Q5403 | | 8-729-119-78 | 2SC2785-HFE | | | |
| Q5404 | | 8-729-119-76 | 2SA1175-HFE | | | |
| Q5405 | | 8-729-119-76 | 2SA1175-HFE | | | |
| Q5406 | | 8-729-045-05 | 2SA2005 | | | |
| Q5407 | | 8-729-045-04 | 2SC5511 | | | |
| | | | <RESISTOR> | | | |
| R5401 | | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5402 | | 1-249-415-11 | CARBON | 680 | 5% | 1/4W |
| R5403 | | 1-247-739-11 | CARBON | 100 | 5% | 1/2W |
| R5404 | | 1-249-418-11 | CARBON | 1.2K | 5% | 1/4W |
| R5405 | | 1-216-864-11 | SHORT CHIP | 0 | | |
| R5406 | | 1-216-065-91 | RES-CHIP | 4.7K | 5% | 1/10W |
| R5407 | | 1-249-401-11 | CARBON | 47 | 5% | 1/4W |
| R5408 | | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R5409 | | 1-249-409-11 | CARBON | 220 | 5% | 1/4W |
| R5410 | | 1-249-401-11 | CARBON | 47 | 5% | 1/4W |

| REF NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R5411 | 1-249-401-11 | CARBON | 47 | 5% | 1/4W |
| R5412 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R5413 | 1-249-414-11 | CARBON | 560 | 5% | 1/4W |
| R5414 | 1-249-432-11 | CARBON | 18K | 5% | 1/4W |
| R5415 | 1-247-739-11 | CARBON | 100 | 5% | 1/2W |
| R5416 | 1-249-385-11 | CARBON | 2.2 | 5% | 1/4W |
| R5417 | 1-249-432-11 | CARBON | 18K | 5% | 1/4W |
| R5418 | 1-249-414-11 | CARBON | 560 | 5% | 1/4W |
| R5419 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R5420 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R5421 | 1-249-385-11 | CARBON | 2.2 | 5% | 1/4W |
| R5422 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W |
| R5423 | 1-215-915-11 | METAL OXIDE | 470 | 5% | 3W |
| R5424 | 1-249-395-11 | CARBON | 15 | 5% | 1/4W |
| R5425 | 1-216-017-91 | RES-CHIP | 47 | 5% | 1/10W |
| R5427 | 1-249-395-11 | CARBON | 15 | 5% | 1/4W |

**********

ACCESSORIES AND PACKING MATERIALS
**********

| | | |
|---|---|---|
| | 1-569-008-21 | ADAPTOR, CONVERSION 2P (KV-DR29M89) |
| | 3-701-910-00 | SCREW, SPECIAL (DIA. 3.8X20) |
| * | 4-029-168-01 | BAG, PROTECTION (KV-DR29M39/M69/M89) |
| * | 4-054-764-01 | BAG,PROTECTION (KV-DR29M63) |
| | 4-065-210-01 | JOINT |
| * | 4-086-732-02 | INDIVIDUAL CARTON (KV-DR29M39/M69/M89) |
| * | 4-088-350-01 | INDIVIDUAL CARTON (KV-DR29M63) |
| * | 4-087-147-01 | CUSHION, UPPER (KV-DR29M39/M69/M89) |
| * | 4-088-352-01 | CUSHION, UPPER (KV-DR29M63) |
| * | 4-087-148-01 | CUSHION, LOWER (KV-DR29M39/M69/M89) |
| * | 4-088-353-01 | CUSHION, LOWER (KV-DR29M63) |
| | 4-088-297-11 | MANUAL, INSTRUCTION(KV-DR29M39) |
| | 4-088-356-11 | MANUAL, INSTRUCTION (KV-DR29M63) |
| | 4-088-512-11 | MANUAL, INSTRUCTION (KV-DR29M69) |
| | 4-088-298-11 | MANUAL, INSTRUCTION (KV-DR29M89) |
| * | 4-086-733-01 | TRAY (KV-DR29M39/M69/M89) |
| * | 4-088-351-01 | TRAY (KV-DR29M63) |
| | 4-392-003-11 | BAND, HOLD (KV-DR29M39/M69/M89) |
| | 4-392-003-21 | BAND, HOLDING (KV-DR29M63) |
| | 4-392-004-11 | CLIP (KV-DR29M39/M69/M89) |
| | 4-059-705-01 | CLIP (KV-DR29M63) |

**********

BATTERY COVER REMOTE COMMANDER
**********

| | | |
|---|---|---|
| | 1-477-313-11 | REMOTE COMMANDER (RM-991) |
| | 4-079-833-01 | BATTERY COVER REMOTE COMMANDER |

SONY

# SERVICE MANUAL

# AG3E CHASSIS

| MODEL | COMMANDER | DEST. | CHASSIS NO. | MODEL | COMMANDER | DEST. | CHASSIS NO. |
|---|---|---|---|---|---|---|---|
| KV-DR29M39 | RM-991 | Oceania | SCC-U81A-A | | | | |
| KV-DR29M63 | RM-991 | Thailand | SCC-U82A-A | | | | |
| KV-DR29M69 | RM-991 | GE | SCC-U84A-A | | | | |
| KV-DR29M89 | RM-991 | ME | SCC-U83A-A | | | | |

# SUPPLEMENT-1

**SUBJECT : D PWB SUFFIX CHANGE**

Note : The following changes apply to model KV-DR29M69/DR29M89 only.

SECTION 7. DIAGRAMS

7-4. PRINTED WIRING BOARDS AND PARTS LOCATION
(see page 96 ~ 97)

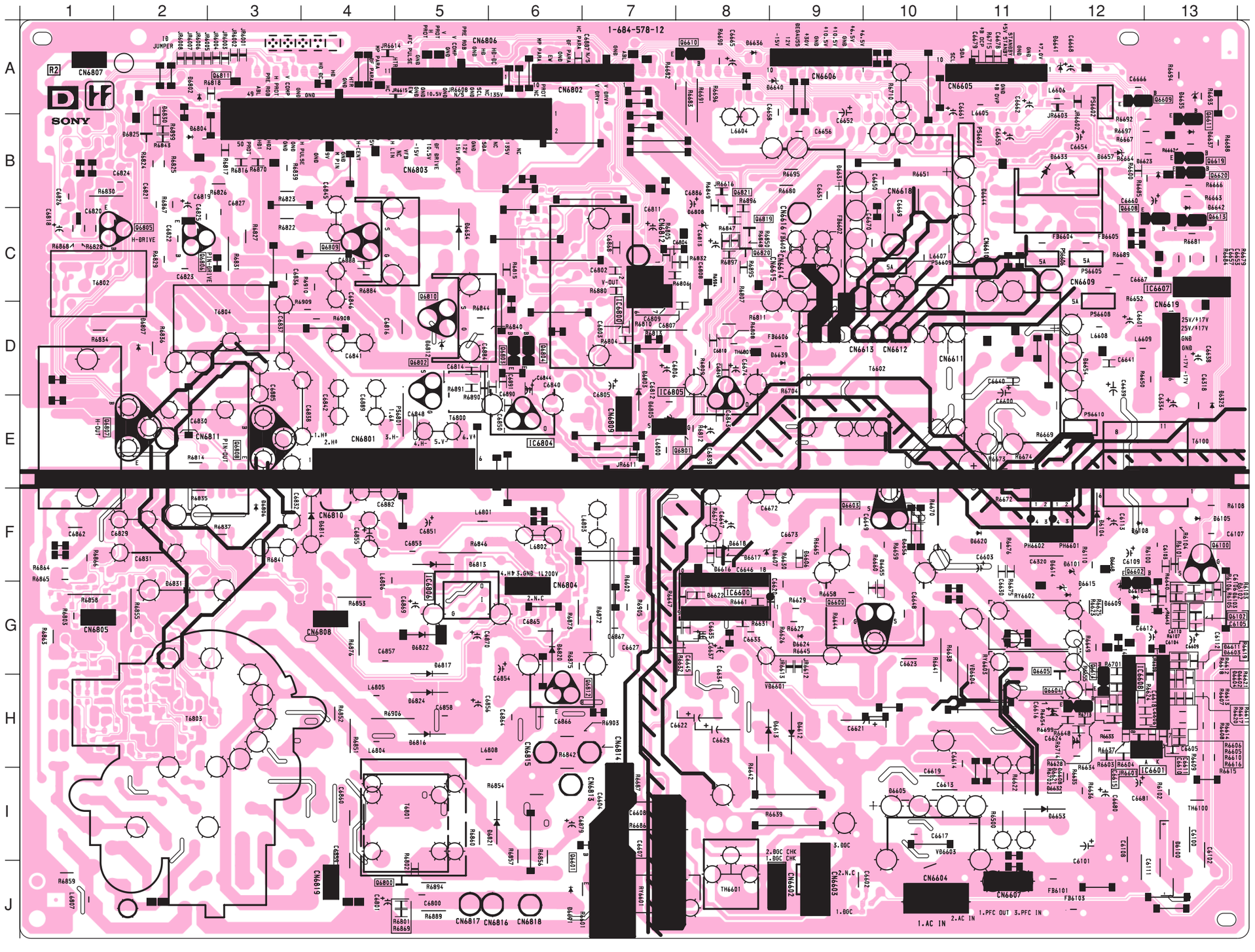
KV-DR29M39/DR29M63/
KV-DR29M69/DR29M89
RM-991

## PRINTED WIRING BOARDS

**D** [POWER SUPPLY, DEFLECTION HV]

**NOTE:**
The circuit indicated at left contains high voltage of over 1220 Vp-p. Please pay attention when inspecting or re-pairing it to prevent an electric shock.

**– D board –**




D BOARD

| IC | | D6105 | F-13 |
|---|---|---|---|
| IC6600 | G-8 | D6108 | F-12 |
| IC6607 | C-13 | D6323 | E-13 |
| IC6608 | H-12 | D6601 | J-6 |
| IC6661 | I-13 | D6606 | F-9 |
| IC6800 | D-7 | D6607 | F-9 |
| IC6804 | E-6 | D6609 | G-12 |
| IC6805 | D-7 | D6612 | H-9 |
| IC6806 | G-5 | D6613 | H-9 |
| **TRANSISTOR** | | D6614 | F-12 |
| Q6100 | F-13 | D6615 | G-12 |
| Q6102 | G-13 | D6617 | F-8 |
| Q6600 | G-9 | D6618 | F-8 |
| Q6601 | I-6 | D6620 | F-11 |
| Q6602 | F-12 | D6622 | G-8 |
| Q6603 | F-9 | D6623 | B-13 |
| Q6604 | H-12 | D6624 | G-9 |
| Q6605 | G-11 | D6631 | B-9 |
| Q6608 | B-12 | D6633 | B-12 |
| Q6609 | A-13 | D6634 | C-5 |
| Q6610 | A-8 | D6635 | A-13 |
| Q6611 | B-13 | D6636 | A-8 |
| Q6613 | C-13 | D6637 | B-13 |
| Q6614 | G-12 | D6639 | D-9 |
| Q6619 | B-13 | D6640 | A-9 |
| Q6620 | B-13 | D6641 | A-12 |
| Q6800 | J-4 | D6644 | B-11 |
| Q6801 | E-8 | D6648 | F-12 |
| Q6802 | D-5 | D6653 | I-12 |
| Q6803 | D-6 | D6654 | D-12 |
| Q6804 | D-6 | D6655 | F-10 |
| Q6805 | C-2 | D6656 | F-10 |
| Q6806 | C-2 | D6657 | B-12 |
| Q6807 | E-1 | D6802 | A-2 |
| Q6808 | E-3 | D6803 | D-7 |
| Q6809 | C-4 | D6804 | B-2 |
| Q6810 | C-5 | D6805 | E-7 |
| Q6811 | A-3 | D6806 | F-3 |
| Q6812 | H-7 | D6807 | D-2 |
| Q6819 | C-8 | D6808 | C-8 |
| Q6820 | C-8 | D6810 | G-12 |
| Q6821 | B-8 | D6812 | D-5 |
| **DIODE** | | D6813 | F-5 |
| D6100 | I-13 | D6816 | H-5 |
| D6101 | F-12 | D6817 | G-5 |
| D6102 | G-14 | D6820 | G-6 |
| D6104 | F-12 | D6821 | I-6 |
| | | D6822 | G-5 |
| | | D6824 | H-5 |
| | | D6825 | B-2 |
| | | D6830 | A-2 |
| | | D6831 | G-2 |

Sony Corporation
Sony Technology Malaysia Sdn. Bhd.
Visual Products

9-872-304-02

English
© 2002.6

SONY

4-088-297-**11** (1)

# *Trinitron Color TV*

## Operating Instructions

**GB**

- Before operating the unit, please read this manual thoroughly and retain it for future reference.

FD Trinitron
WEGA

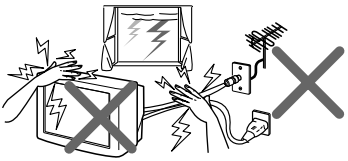
*KV-DR34*
*KV-DR29*

© 2002 Sony Corporation

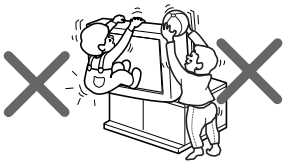
M89
M39

# WARNING

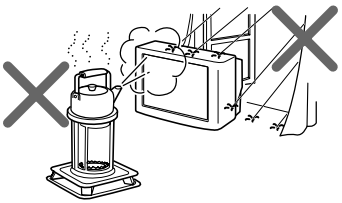
- Dangerously high voltages are present inside the TV.
- TV operating voltage: 110 – 240 V AC. (For New Zealand only: 220 - 240 V AC.)
- Do not plug in the power cord until you have completed making all other connections; otherwise a minimum leakage current might flow through the antenna and other terminals to ground.
- To avoid battery leakage and damage to the remote, remove the batteries from the remote if you are not going to use it for several days. If any liquid leaks from the batteries and touches your skin, immediately wash it away with water.



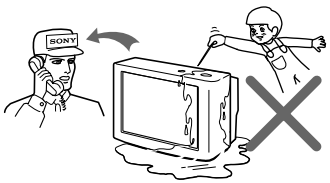
For your own safety, do not touch any part of the TV, the power cord and the antenna cable during lightning storms.



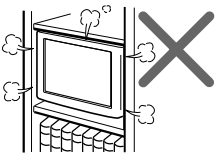
For children's safety, do not leave children alone with the TV. Do not allow children to climb onto it.



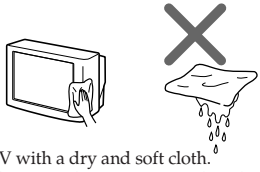
To prevent fire or shock hazard, do not expose the TV to rain or moisture.



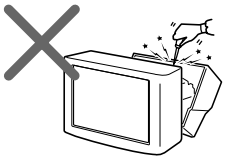

Do not operate the TV if any liquid or solid object falls into it. Have it checked immediately by qualified personnel only.



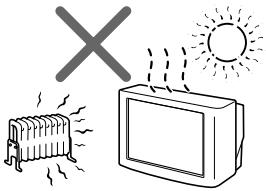
Do not block the ventilation openings of the TV. Do not install the TV in a confined space, such as a bookcase or built-in cabinet.



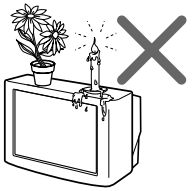
Clean the TV with a dry and soft cloth. Do not use benzine, thinner, or any other chemicals to clean the TV. Do not attach anything (e.g., adhesive tape, cellophane tape, glue) on the painted cabinet of the TV. Do not scratch the picture tube.



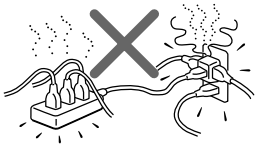
Do not open the cabinet and the rear cover of the TV as high voltages and other hazards are present inside the TV. Refer servicing and disposal of the TV to qualified personnel.



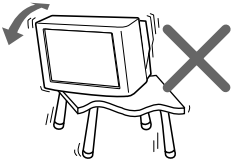
Your TV is recommended for home use only. Do not use the TV in any vehicle or where it may be subject to excessive dust, heat, moisture or vibrations.



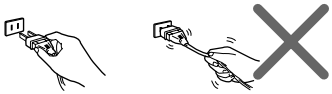
Do not place any objects on the TV.



Do not plug in too many appliances to the same power socket. Do not damage the power cord.



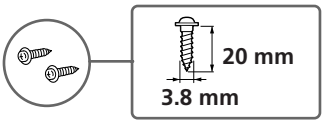
Install the TV on a stable TV stand and floor which can support the TV set weight. Ensure that the TV stand surface is flat and its area is larger than the bottom area of the TV.



Pull the power cord out by the plug. Do not pull the power cord itself. Even if your TV is turned off, it is still connected to the AC power source (mains) as long as the power cord is plugged in. Unplug the TV before moving it or if you are not going to use it for several days.

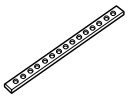
# ■ Securing the TV

To prevent the TV from falling, use the supplied screws, clamps and band to secure the TV.

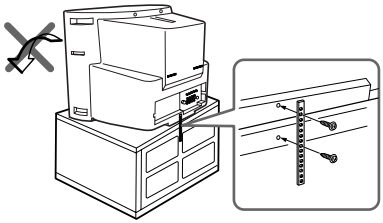



screws

clamps

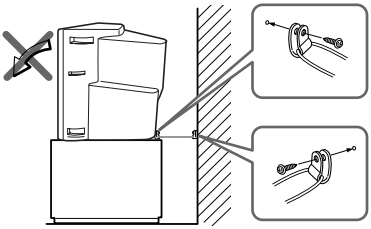


band



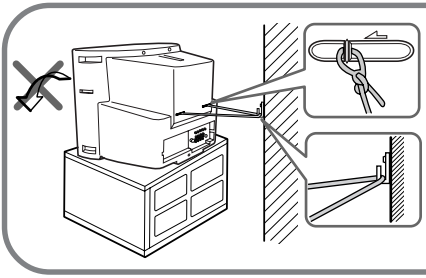
Screw the band to the TV stand and to the provided hole at the rear of your TV.

**or**



(1) Put a cord or chain through the clamps.
(2) Screw one clamp to a wall or pillar and the other clamp to the provided hole at the rear of your TV.

**or**



(1) Attach each end of a cord or chain to the provided holders at the rear of your TV.
(2) Securely fix the attached cord or chain to a wall or pillar using an attachment which can support the TV set weight.

**Note**

- Use only the supplied screws. Use of other screws may damage the TV.

# Table of Contents


## Installation

Getting Started ..... **6**
Setting up your TV ("INITIAL SETUP") ..... **7**

## Overview of Controls

TV front and rear panels ..... **8**
Remote control ..... **9**

## Advanced Operations

Selecting the picture and sound modes ..... **11**
Viewing higher quality pictures with DRC-MF ..... **12**
Viewing the picture in wide mode .. **12**
Watching Picture-in-Picture (PIP) ... **13**
Selecting a TV program using PIP .. **14**
Listening with surround sound ..... **14**
Setting the timers ..... **15**
Enjoying stereo or bilingual programs (KV-DR29M39 only) ..... **16**
Viewing Teletext ..... **17**

## Menu Adjustment

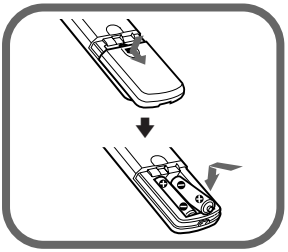
Introducing the menu system ..... **18**
Changing the "PICTURE" setting ... **21**
Changing the "SOUND" setting ..... **23**
Changing the Picture-in-Picture ("PIP") setting ..... **25**
Changing the "SETUP" setting ..... **26**
Changing the Channel Preset ("CH PRESET") setting ..... **28**

## Additional Information

Connecting optional components ... **31**
Troubleshooting ..... **33**
Specifications ..... **Back cover**


GB

# ■ Getting Started

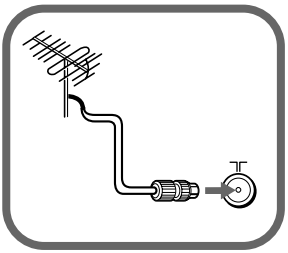


## Step 1

Insert the batteries (supplied) into the remote.

**Note**

- Do not use old or different types of batteries together.

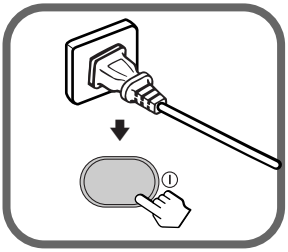


## Step 2

Connect the antenna cable (not supplied) to ⅂⊢ (antenna input) at the rear of the TV.

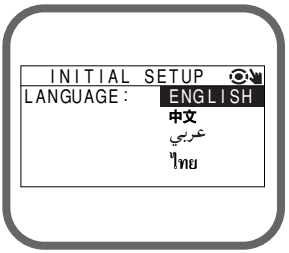
**Tip**

- You can also connect your TV to other optional components (see page 31).



## Step 3

Plug in the power cord, then press ⏻ on the TV to turn it on.

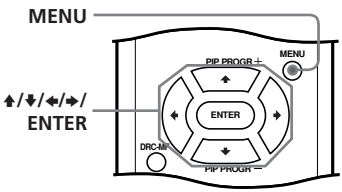



## Step 4

Set up the TV by following the instructions of the "INITIAL SETUP"menu (see page 7).

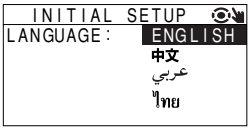
# ■ Setting up your TV ("INITIAL SETUP")

When you turn on your TV for the first time, the "INITIAL SETUP" menu will appear. This menu allows you to change the menu language, adjust the picture position and preset the TV channels automatically.



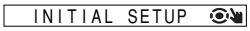

**1** Press ↑ or ↓ to select the desired menu language (e.g.,"ENGLISH"), then press ENTER.

The selected menu language appears.




**2** Press ↑ or ↓ (or ←/→), then press ENTER to adjust the picture position if it is not aligned to the TV screen.

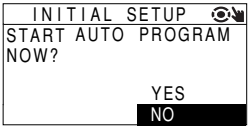
The ⊞ or ⊟ icon on the screen flashes while adjusting.

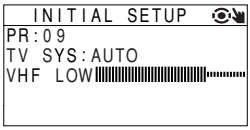


**3** Press ↑ or ↓ to select "YES", then press ENTER to preset the channels automatically (see page 28).

The screen will indicate automatic presetting is in progress.

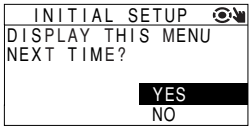
To skip automatic channel presetting, select "NO", then press ENTER.




**4** Press ↑ or ↓ to select "NO", then press ENTER. The "INITIAL SETUP" menu will not appear again the next time you turn on the TV by pressing ⏻.

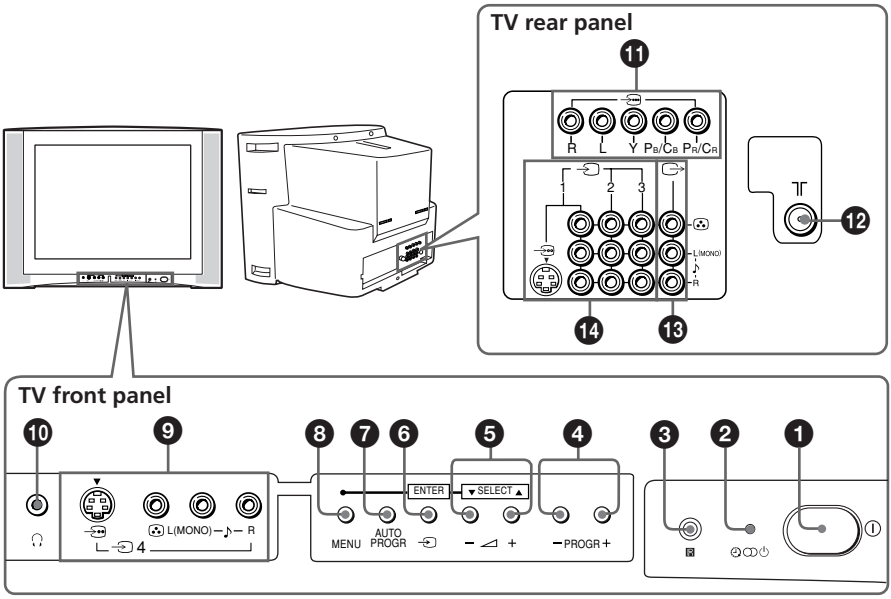
To allow this menu to appear again, select "YES", then press ENTER.




**Tip**

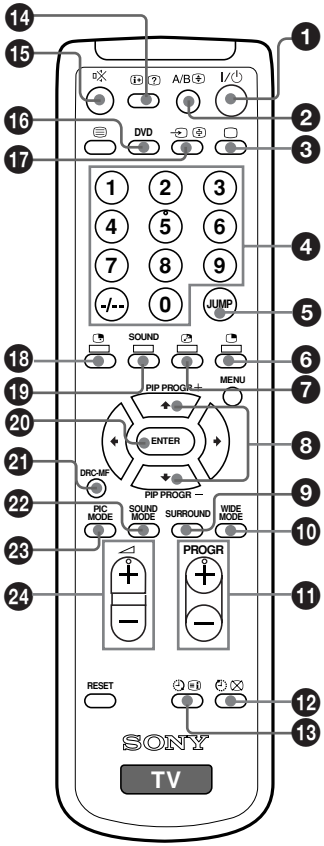
- You can immediately go to the end of the "INITIAL SETUP" menu by pressing MENU.
- You can also set up your TV using the menu system (see page 18).

# ■ TV front and rear panels




| Button/Terminal | Function | Page |
|---|---|---|
| ❶ ⏻ | Turn off or turn on the TV. | – |
| ❷ ⏻ | Standby indicator. | – |
| ❷ 🕘 | Wake Up indicator. | 15 |
| ❷ (KV-DR29M39 only) | Stereo/bilingual indicator. | 16 |
| ❸ | Remote control sensor. | – |
| ❹ PROGR +/– | Select program number. | – |
| ❺ +/– | Adjust volume. | – |
| ❻ | Select TV or video input. | – |
| ❼ AUTO PROGR | Preset channels automatically. | – |
| Menu operations | | |
| ❺ SELECT ▼/▲ | Select and adjust items | 20 |
| ❻ ENTER | Confirm selected items | 20 |
| ❽ MENU | Display or cancel the menu | 20 |
| ❾ 4 | Video input terminal 4. | 31 |
| ❿ | Headphone jack. | – |
| ⓫ | Component video input terminal. | 32 |
| ⓬ | Antenna input terminal. | 31 |
| ⓭ | Monitor output terminal. | 31 |
| ⓮ 1, 2, 3 | Video input terminal 1, 2, 3. | 31 |

# ■ Remote control

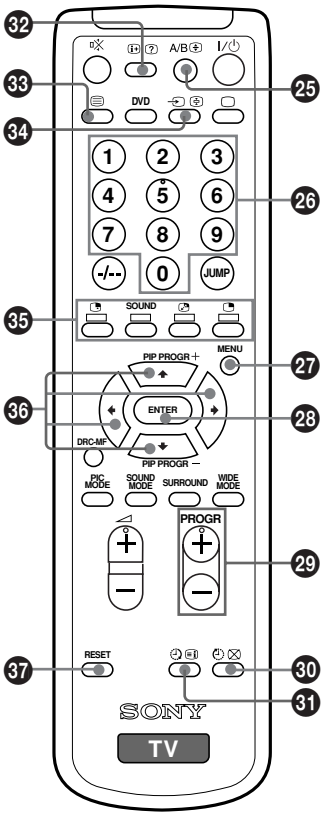



| Button | Function | Page |
|---|---|---|
| ❶ I/⏻ | Turn off temporarily or turn on the TV. | – |
| ❸ ▭ | Display the TV input. | – |
| ❹ 0 – 9, -/-- | Input numbers. | – |
| ❺ JUMP | Jump to previous program number. | – |
| ❾ SURROUND | Select surround mode. | 14 |
| ❿ WIDE MODE | Select wide-mode (16:9). | 12 |
| ⓫ PROGR +/– | Select program number. | – |
| ⓮ i+ | Display on-screen information. | – |
| ⓯ 🔇 | Mute the sound. | – |
| ⓰ DVD | Select component video input. | 32 |
| ⓱ ▭ | Select TV or video input. | 31 |
| ㉑ DRC-MF | Select DRC-MF mode. | 12 |
| ㉒ SOUND MODE | Select sound mode. | 11 |
| ㉓ PIC MODE | Select picture mode. | 11 |
| ㉔ ◿ +/– | Adjust volume. | – |
| **Timer operations** | | |
| ⓬ ⏲ | Set TV to turn off automatically. | 15 |
| ⓭ ⏲ | Set TV to turn on automatically. | 15 |
| **PIP operations (yellow label)** | | |
| ❻ ▭ | Display a sub screen. | 13 |
| ❼ ▭ | Swap main and sub screens. | 13 |
| ❽ PIP PROGR +/ PIP PROGR – | Display and change programs in the sub screen. | 13,14 |
| ⓲ ▭ | Select a video input in the sub screen. | 13 |
| ⓳ SOUND | Swap sound between main and sub screen. | 13 |
| ⓴ ENTER | Change sub screen to main screen. | 14 |
| **Stereo/bilingual operations (KV-DR29M39 only)** | | |
| ❷ A/B | Select stereo/bilingual mode. | 16 |



continue

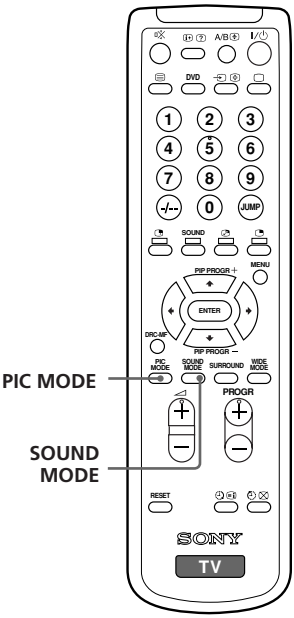
*continued*




| Button | Function | Page |
|---|---|---|
| **Menu operations** | | |
| 27 MENU | Display or cancel the menu. | 20 |
| 28 ENTER | Confirm selected items. | 20 |
| 36 ↑, ↓, ←, → | Select and adjust items. | 20 |
| **Teletext operations (green label)** | | |
| 25 ⊕ | Enlarge the Teletext display. | 17 |
| 26 0 – 9 | Input Teletext page number | 17 |
| 29 PROGR +/– | Display the next or previous page. | 17 |
| 30 ⊠ | Show TV screen while waiting for Teletext page. | 17 |
| 31 ⓘ | Display Teletext service contents. | 17 |
| 32 ? | Reveal concealed information. | 17 |
| 33 ☰ | Display Teletext broadcast. | 17 |
| 34 ⊟ | Stop Teletext display from scrolling. | 17 |
| 35 ▬ (red, green, yellow, blue) | Access a FASTEXT menu. | 17 |
| 37 RESET | Set TV to factory setting. | 33 |

# Selecting the picture and sound modes

You can select picture and sound modes and adjust the setting to your preference in the “PERSONAL” option.




## Selecting the picture mode

Press PIC MODE to select the desired picture mode.

| Select | To |
|---|---|
| “DYNAMIC” | view high contrast pictures. |
| “STANDARD” | view normal pictures. |
| “HI-FINE” | view higher density pictures with mild contrast. |
| “PERSONAL” | receive the last adjusted picture setting from the “ADJUST” option in the “PICTURE” menu (see page 22). |

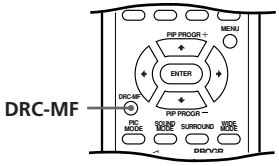
## Selecting the sound mode

Press SOUND MODE to select the desired sound mode.

| Select | To |
|---|---|
| “♪ DYNAMIC” | listen to dynamic and clear sound that emphasizes both the low and high tones. |
| “♪ DRAMA” | listen to sound that emphasizes voice and high tones. |
| “♪ SOFT” | listen to soft sound. |
| “♪ PERSONAL” | receive the last adjusted sound setting from the “ADJUST” option in the “SOUND” menu (see page 24). |

# ■ Viewing higher quality pictures with DRC-MF

The Digital Reality Creation-Multi Function (DRC-MF) feature allows you to enjoy higher quality pictures on your TV. You can use the DRC-MF button to select "DRC1250" or "DRC PROGRESSIVE".




| Select | To |
|---|---|
| "DRC1250" | view super real (higher density) pictures. |
| "DRC PROGRESSIVE" | reduce jitter of any small areas or scanning lines (e.g., letters or the edge of objects) on the screen. |

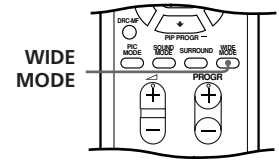
**Note**

- The DRC-MF mode is not selectable when the "GAME MODE" or Picture-in-Picture ("PIP") mode is turned on.

The DRC-MF logo ( DRC-MF Digital Reality Creation ) and "DRC-MF" are trademarks of Sony Corporation.

# ■ Viewing the picture in wide mode

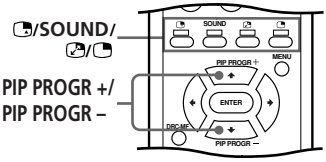
When receiving a wide-mode (16:9) signal, the picture will appear "squeezed" (compressed) on your screen. Use the WIDE MODE button to view the picture with the optimal effect.




| Select | To |
|---|---|
| "ON" | view the picture in wide-mode (16:9). |
| "OFF" | cancel wide-mode (16:9). |

# ■ Watching Picture-in-Picture (PIP)

With the PIP feature, you can display two different TV programs or video input at the same time by using the ◔ button.



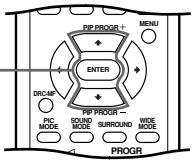

| To | Press |
|---|---|
| Display a sub screen | ◔.<br>To cancel the sub screen, press the button again. |
| Change a program number in the sub screen | PIP PROGR + or<br>PIP PROGR –. |
| Select a video input in the sub screen | ◔. |
| Swap pictures between the main and sub screens | ◔. |
| Swap sound between the main and sub screens<br><br>A "♪" symbol will appear next to the program number or video input display to indicate which screen you are hearing. | SOUND. |

**Notes**

- The DRC-MF mode is not selectable when PIP is turned on.
- The picture and sound from the ⊃ (monitor output) terminals will always be from the main screen, even when you select the sub screen sound by pressing SOUND (see page 31).

# ■ Selecting a TV program using PIP

You can select your desired TV program directly from the PIP sub screen by using the PIP PROGR +/– buttons.

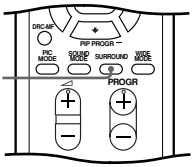



**1** Press PIP PROGR +/– until the desired program appears in the sub screen.

**2** Press ENTER to change the sub screen program to the main screen.

# ■ Listening with surround sound

You can use the SURROUND button to listen to the sound effects of a concert hall or movie theater.



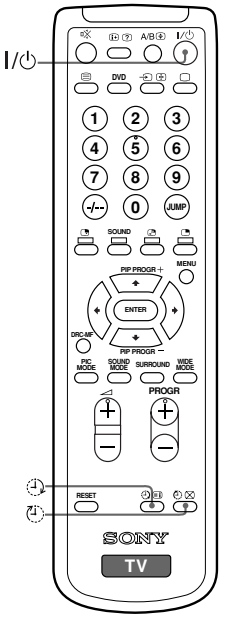

| Select | To |
|---|---|
| "TruSurround" | listen to the surround sound that spreads out to the rear of a room. |
| "SIMULATED" | listen to monaural sound with a stereo-like effect. |
| "OFF" | cancel surround sound. |

The surround of your TV is categorized as TruSurround.

TruSurround™ is a trademark of SRS Labs, Inc. SRS and the SRS symbol are registered trademarks of SRS Labs, Inc. in the United States and selected foreign countries. SRS and TruSurround are incorporated under license from SRS Labs, Inc. and are protected under United States Patent Nos. 4,748,669 and 4,841,572 with numerous additional issued and pending foreign patents.

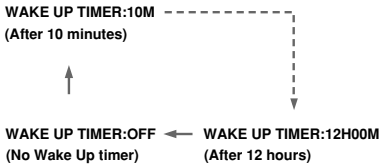
# ■ Setting the timers

You can set your TV to turn on and off automatically by using the WAKE UP and SLEEP timers respectively.




## Setting the Wake Up timer

**1** Press ⏲ until the desired period of time appears on the screen.




The Wake Up timer starts immediately after you have set it.

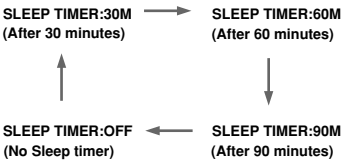
**2** Select the program number or video input you want to wake up to.

**3** Press I/⏻, or set the Sleep timer if you want the TV to turn off automatically.

The ⏲ indicator on the TV lights up orange when the TV goes into standby mode.

## Setting the Sleep timer

Press ⏲ until the desired period of time appears on the screen.




The Sleep timer starts immediately after you have set it.

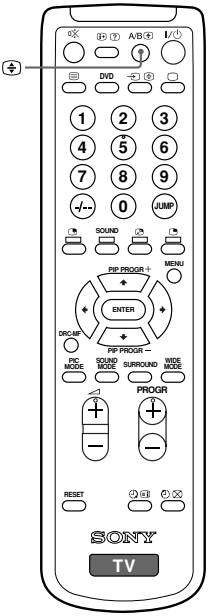
**Notes**

- You can also cancel the Wake Up and Sleep timers by turning off the TV's main power.
- If no buttons are pressed for more than two hours after the TV is turned on using the Wake Up timer, the TV automatically goes into standby mode.

# ■ Enjoying stereo or bilingual programs

### ▶ KV-DR29M39 only

You can enjoy stereo sound or bilingual programs of NICAM and A2 stereo systems by using the A/B button.




## When receiving a NICAM program

| Broadcasting | On-screen display (Selected sound) |
|---|---|
| NICAM stereo | NICAM (Stereo sound) → MONO (Regular sound) |
| NICAM bilingual | NICAM MAIN (Main sound) → NICAM SUB (Sub sound) → MONO (Regular sound) |
| NICAM monaural | NICAM MAIN (Main sound) → MONO (Regular sound) |

## When receiving an A2 program

| Broadcasting | On-screen display (Selected sound) |
|---|---|
| A2 stereo | STEREO (Stereo sound) → MONO (Regular sound) |
| A2 bilingual | MAIN (Main sound) → SUB (Sub sound) |

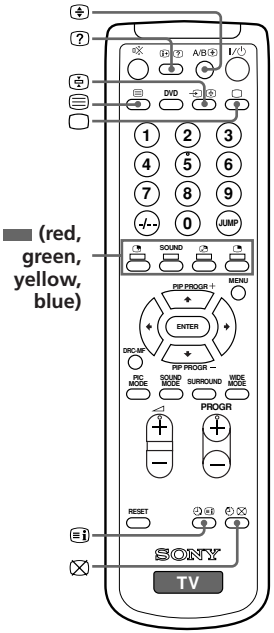
**Notes**

- If the stereo sound is noisy when receiving a stereo program, select “MONO”. The sound becomes monaural, but the noise is reduced.
- If the sound is distorted when receiving a monaural program through ⅂ (antenna input), press A/B repeatedly until “MONO” appears on the screen. To cancel the monaural sound setting, press A/B again until “AUTO” appears on the screen.

# Viewing Teletext

Some TV stations broadcast an information service called Teletext which allows you to receive various information, such as stock market reports and news.

You can use the buttons on the remote to view Teletext.



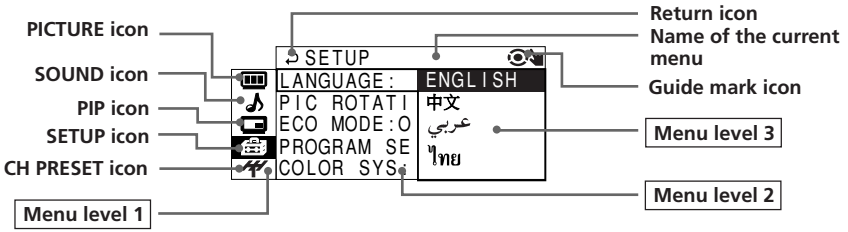

| To | Do this |
|---|---|
| display a Teletext page on the TV picture | Press ☰. Each time you press ☰, the screen changes as follows: Teletext → Teletext and TV → TV. If there is no Teletext broadcast, "100" is displayed at the top left corner of the screen. |
| check the contents of a Teletext service | Press ⓘ. An overview of the Teletext contents, including page numbers, appears on the screen. |
| select a Teletext page | Press the number buttons to enter the three-digit page number of the desired Teletext page. If you make a mistake, reenter the correct page number. To access the next or previous page, press PROGR +/–. |
| hold (pause) a Teletext display | Press ⊜ to display the symbol "⊜" at the top left corner of the screen. To resume normal Teletext viewing, press ⊜ or ☰. |
| reveal concealed information (e.g., an answer to a quiz) | Press ?. To conceal the information, press the button again. |
| enlarge the Teletext display | Press ⊕. Each time you press ⊕, the Teletext display changes as follows: Enlarge upper half → Enlarge lower half → Normal size. |
| stand by for a Teletext page while watching a TV program | 1 Enter the Teletext page number that you want to refer to, then press ⊠.<br>2 When the page number is displayed, press ☰ to show the text. |
| select a FASTEXT menu or the colored boxes | Press ■ (red, green, yellow and blue) that corresponds to the desired menu or page number. |
| turn off Teletext | Press ▭. |

**Note**

- The FASTEXT feature can be used only when the FASTEXT broadcast is available.

# ■ Introducing the menu system

The MENU button lets you open a menu and change the settings of your TV. The following is an overview of the menu system.




| Level 1 | Level 2 | Level 3/Function | Page |
|---|---|---|---|
| "PICTURE" | "DRC-MF" | Select the "DRC-MF" mode:<br>"DRC1250" → "PROGRESSIVE" | 21 |
| | "PICTURE MODE" | Select the picture mode:<br>"DYNAMIC" → "STANDARD" → "HI-FINE" → "PERSONAL" → "ADJUST" | |
| | "ADJUST" | Adjust the "PERSONAL" option:<br>"PICTURE" → "COLOR" → "BRIGHT" → "HUE" → "SHARP" | |
| | "3D-NR" | Reduce picture noise:<br>"ON" → "OFF" | |
| | "WIDE MODE" | Change the picture size. | |
| | "GAME MODE" | Adjust the picture settings for video games. | |
| "SOUND" | "SOUND MODE" | Select the sound mode:<br>"DYNAMIC" → "DRAMA" → "SOFT" → "PERSONAL" → "ADJUST" | 23 |
| | "ADJUST" | Adjust the "PERSONAL" option:<br>"BASS" → "TREBLE" → "BALANCE" → "BBE"* | |
| | "SURROUND" | Select the "SURROUND" mode:<br>"TruSurround" → "SIMULATED" →"OFF" | |
| | "INTELLIGENT VOL" | Adjust volume automatically. | |
| "PIP" | "POSITION" | Change the position of the sub screen. | 25 |
| | "PIP" | Display a sub screen within the main picture. | |
| | "SWAP" | Exchange pictures between main screen and sub screen. | |

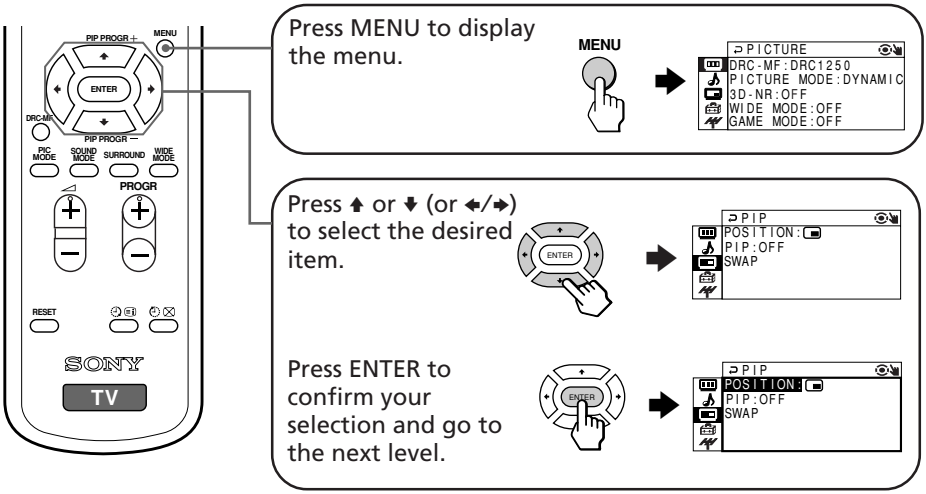
| Level 1 | Level 2 | Level 3/Function | Page |
|---|---|---|---|
| “SETUP” | “LANGUAGE” | Change the menu language: “ENGLISH” → “中文”(Chinese) → “عربي”(Arabic) → “ไทย”(Thai) | 26 |
| | “PIC ROTATION” | Adjust the picture position. | |
| | “ECO MODE” | Reduce power consumption of your TV. | |
| | “PROGRAM SETUP” | Adjust each program number settings. | |
| | “COLOR SYS” | Select the color system: “AUTO” →“ PAL” → “SECAM” → “NTSC3.58” → “NTSC4.43” | |
| “CH PRESET” | “AUTO PROGRAM” | Preset channels automatically. | 28 |
| | “MANUAL PROGRAM” | Preset channels manually. | |
| | “TV SYS” | Select the TV system: “B/G” → “I” → “D/K” → “M” | |

* The BBE is manufactured by Sony Corporation under license from BBE Sound, Inc. It is covered by U.S. Patent No. 4,638,258 and No. 4,482,866. The word “BBE” and the BBE symbol are the trademarks of BBE Sound, Inc.

**continue**

*continued*

## How to use the menu



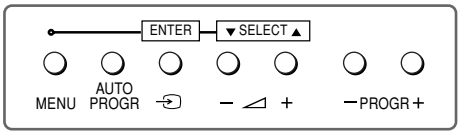

### Other menu operations

| To | Press |
|---|---|
| Adjust the setting value | ↑, ↓, ← or →. |
| Move to the next/previous menu level | ← or →. |
| Cancel the menu | MENU. |

**Tips**

- If you want to exit from Menu level 2 to Menu level 1, press ↑ or ↓ until the return icon ( ⮌ ) is highlighted, then press ENTER.
- Some of the menu items can be operated directly using the remote buttons.
- The MENU, ENTER, and SELECT ▼/▲ buttons on the TV can also be used for the operations above.

**Front of TV**

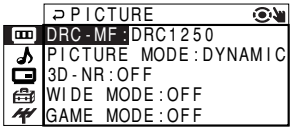


# ■ Changing the “PICTURE” setting

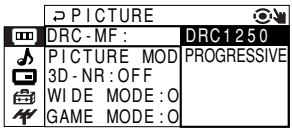
The “PICTURE” menu allows you to adjust the picture settings.

**1** Press MENU.

**2** Make sure the “PICTURE” icon ( ) is selected, then press ENTER.




**3** Press ↑ or ↓ to select the desired item (e.g., “DRC-MF”), then press ENTER.




| Select | To |
|---|---|
| “DRC-MF” | choose either “DRC1250” or “PROGRESSIVE” (see page 12). |
| “PICTURE MODE” | choose either “DYNAMIC”, “STANDARD”, “HI-FINE”, “PERSONAL”*, or “ADJUST” (see page 11). |
| “3D-NR” | adjust picture signal automatically to reduce noise.<br>Press ↑ or ↓ to select “ON”, then press ENTER.<br>To cancel, select “OFF”, then press ENTER. |
| “WIDE MODE” | choose either “ON” or “OFF” (see page 12). |
| “GAME MODE” | adjust the picture setting that is suitable to view video games.<br>Press ↑ or ↓ to select “ON”, then press ENTER.<br>To cancel, select “OFF”, then press ENTER. |

* When the “PERSONAL” mode is selected, you can receive the last adjusted picture settings from the “ADJUST” option (see page 22).

**Notes**

- “GAME MODE” is available only when receiving signals through (video input), (S video input), or (component video input).
- The DRC-MF mode is not selectable when GAME MODE is turned on.

**continue**

*continued*

## Adjusting the "ADJUST" items under "PICTURE MODE"

**1** Press ↑ or ↓ to select the desired item (e.g.,"COLOR"), then press ENTER.

**2** Adjust the value according to the following table, then press ENTER.

| For | Press ↓ or ← to | Press ↑ or → to |
|---|---|---|
| "PICTURE" | decrease picture contrast. | increase picture contrast. |
| "COLOR" | decrease color intensity. | increase color intensity. |
| "BRIGHT" | darken the picture. | brighten the picture. |
| "HUE" | increase red picture tones. | increase green picture tones. |
| "SHARP" | soften the picture. | sharpen the picture. |

**Notes**

- "HUE" can be adjusted for the NTSC color system only.
- Reducing sharpness ("SHARP") can also reduce picture noise.

**3** Repeat the above steps to adjust other items.

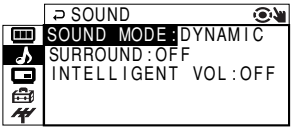
The adjusted settings will be received when you select "PERSONAL".

# ■ Changing the “SOUND” setting

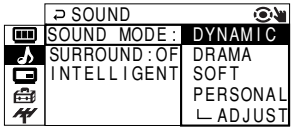
The “SOUND” menu allows you to adjust the sound settings.

**1** Press MENU.

**2** Press ↑ or ↓ to select the “SOUND” icon (♪), then press ENTER.




**3** Press ↑ or ↓ to select the desired item (e.g., “SOUND MODE”), then press ENTER.




| Select | To |
|---|---|
| “SOUND MODE” | choose either “DYNAMIC”, “DRAMA”, “SOFT”, “PERSONAL”*, or “ADJUST” (see page 11). |
| “SURROUND” | choose either “TruSurround”, “SIMULATED” or “OFF” (see page 14). |
| “INTELLIGENT VOL” | adjust the volume of all program numbers and video inputs automatically.<br>Press ↑ or ↓ to select “ON”, then press ENTER.<br>To cancel, select “OFF”, then press ENTER. |

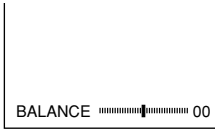
* When the “PERSONAL” mode is selected, you can receive the last adjusted sound settings from the “ADJUST” option (see page 24).

continue

*continued*

## Adjusting the "ADJUST" items under "SOUND MODE"

**1** Press ↑ or ↓ to select the desired item (e.g., "BALANCE"), then press ENTER.




**2** Adjust the value according to the following table, then press ENTER .

| For | Press ↓ or ← to | Press ↑ or → to |
|---|---|---|
| "BASS" | decrease the bass. | increase the bass. |
| "TREBLE" | decrease the treble. | increase the treble. |
| "BALANCE" | increase the left speaker's volume. | increase the right speaker's volume. |
| "BBE" | select "HIGH" for higher enhancement of sound clarity;<br>select "LOW" for lower enhancement of sound clarity;<br>select "OFF" to cancel BBE sound. | |

**3** Repeat the above steps to adjust other items.

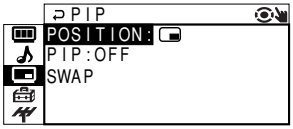
The adjusted settings will be received when you select "PERSONAL".

# ■ Changing the Picture-in-Picture ("PIP") setting

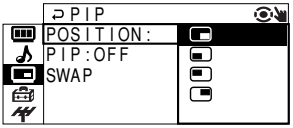
The "PIP" menu allows you to display a sub screen, change the sub screen position and exchange pictures between the main and sub screens.

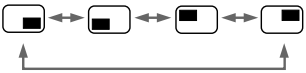
**1** Press MENU.

**2** Press ↑ or ↓ to select the "PIP" icon (), then press ENTER.




**3** Press ↑ or ↓ to select the desired item (e.g., "POSITION"), then press ENTER.



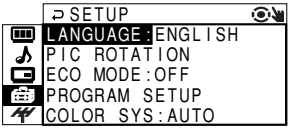

| Select | To |
|---|---|
| "POSITION" | change the position of the sub screen.<br>Press ↑ or ↓ to select the desired position, then press ENTER .<br>  |
| "PIP" | display a sub screen.<br>Press ↑ or ↓ to select "ON", then press ENTER .<br>To cancel, press  or select "OFF", then press ENTER . |
| "SWAP" | exchange pictures between the main screen and sub screen. |

# ■ Changing the “SETUP” setting

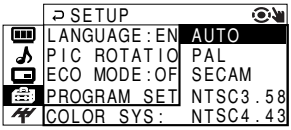
The “SETUP” menu allows you to change the menu language, adjust the picture position, reduce your TV power consumption, set up your program numbers and select the color system.

**1** Press MENU.

**2** Press ↑ or ↓ to select the “SETUP” icon (), then press ENTER.




**3** Press ↑ or ↓ to select the desired item (e.g., “COLOR SYS”), then press ENTER.

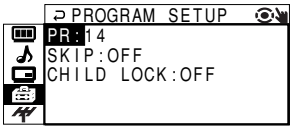



| Select | To |
|---|---|
| “LANGUAGE” | change the menu language.<br>Press ↑ or ↓ to select either “ENGLISH”, “中文” (Chinese), “عربي” (Arabic), or “ไทย” (Thai) then press ENTER.<br>The selected menu language appears. |
| “PIC ROTATION” | adjust the picture position when it is not aligned with the TV screen.<br>Press ↑ , → , ↓ or ← to adjust the picture position, then press ENTER.<br> |
| “ECO MODE” | reduce power consumption of your TV to save energy.<br>Press ↑ or ↓ to select “ON”, then press ENTER.<br>To cancel, select “OFF”, then press ENTER.<br>When you press  or turn on the TV, ECO MODE ( ) symbol will appear on the screen for about 40 seconds. |
| “PROGRAM SETUP” | adjust each channel settings (see **Adjusting each program number settings (“PROGRAM SETUP”)** on page 27). |
| “COLOR SYS” | Select the color system. Normally, set this to “AUTO”. |

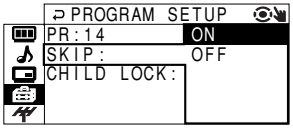
## Adjusting each program number settings (“PROGRAM SETUP”)

**1** Select “PROGRAM SETUP” from the “SETUP” menu.

**2** Select “PR” and press ENTER. Press ↑ or ↓ to select the desired program number you want to adjust, then press ENTER.




**3** Press ↑ or ↓ to select the desired item (e.g., “SKIP”), then press ENTER.




| Select | To |
|---|---|
| “PR” | select the desired program number. |
| “SKIP” | skip unwanted or unused program number.<br>Press ↑ or ↓ to select “ON”, then press ENTER.<br>To cancel, select “OFF”, then press ENTER. |
| “CHILD LOCK” | prevent children from watching this selected program number.<br>Press ↑ or ↓ to select “ON”, then press ENTER.<br>The lock symbol ( 🔒 ) appears on the screen.<br>To cancel, select “OFF”, then press ENTER<br>If you preset a locked program number, that program number will be unlocked automatically. |

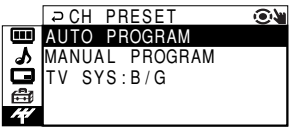
**4** To continue adjusting other program numbers, press ↑ or ↓ to select “PR”, then repeat step 2 and 3.

# ■ Changing the Channel Preset ("CH PRESET") setting

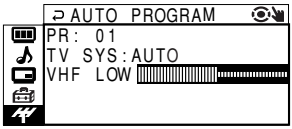
The "CH PRESET" menu allows you to preset channels automatically, manually preset channels and select the TV system.

**1** Press MENU.

**2** Press ↑ or ↓ to select the "CH PRESET" icon (), then press ENTER.




**3** Press ↑ or ↓ to select the desired item (e.g., "AUTO PROGRAM"), then press ENTER.

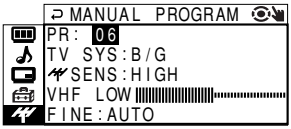



| Select | To |
|---|---|
| "AUTO PROGRAM" | preset channels automatically. |
| "MANUAL PROGRAM" | manually preset desired channels and channels that cannot be preset automatically (see **Presetting channels manually** on page 29). |
| "TV SYS" | select the TV system.<br><br>Press ↑ or ↓ to select either "B/G", "I", "D/K" or "M", then press ENTER. |

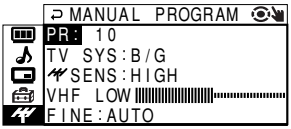
## Presetting channels manually

**1** After selecting "MANUAL PROGRAM", select the program number to which you want to preset a channel.

(1) Make sure "PR" is selected, then press ENTER.




(2) Press ↑ or ↓ until the program number you want to preset (e.g., program number "10") appears on the menu, then press ENTER.

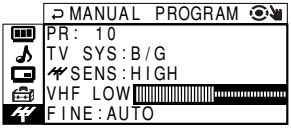



**Tip**

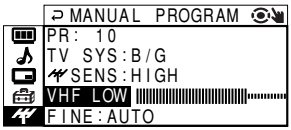
- You can also select the program number with the PROGR +/– or number buttons.

**2** Select the desired channel.

(1) Press ↑ or ↓ to select either "VHF LOW", "VHF HIGH", or "UHF", then press ENTER.

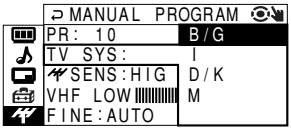



(2) Press ↑ or ↓ until the desired channel's broadcast appears on the TV screen, then press ENTER.

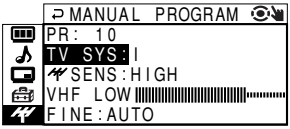



**3** If the sound of the desired channel is abnormal, select the appropriate TV system.

(1) Press ↑ or ↓ to select "TV SYS", then press ENTER.




(2) Press ↑ or ↓ until the sound becomes normal, then press ENTER.

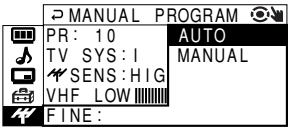



continue

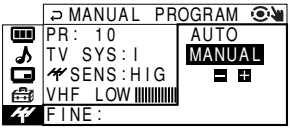
***continued***

**4** If you are not satisfied with the picture and sound quality, you may be able to improve them by using the "FINE" tuning feature.

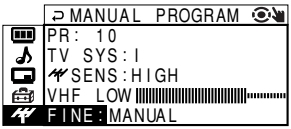
(1) Press ↑ or ↓ to select "FINE", then press ENTER.




(2) Press ↑ or ↓ to select "MANUAL", then press ENTER.

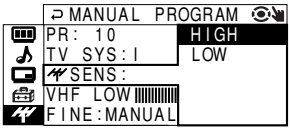



(3) Press ↑, ↓, ← or → until the picture and sound quality are optimal, then press ENTER.
The + or – icon on the menu flashes while tuning.

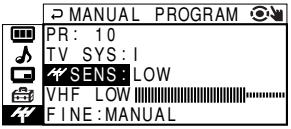



**5** If the TV signal is too strong and the picture is distorted, you can adjust the TV reception sensitivity.

(1) Press ↑ or ↓ to select "SENS", then press ENTER.




(2) Press ↑ or ↓ to select "LOW", then press ENTER.

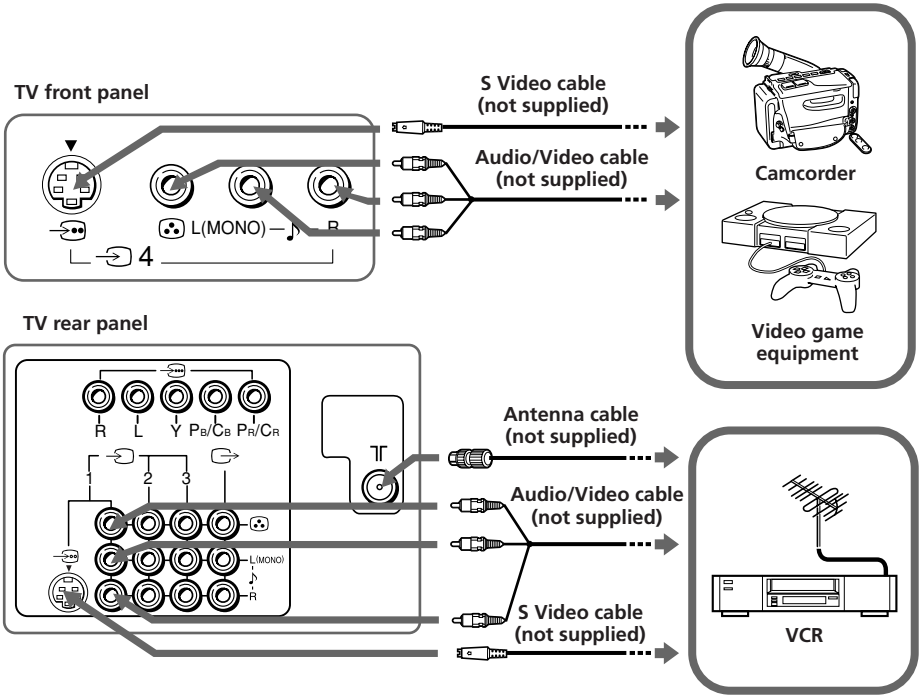



**Note**

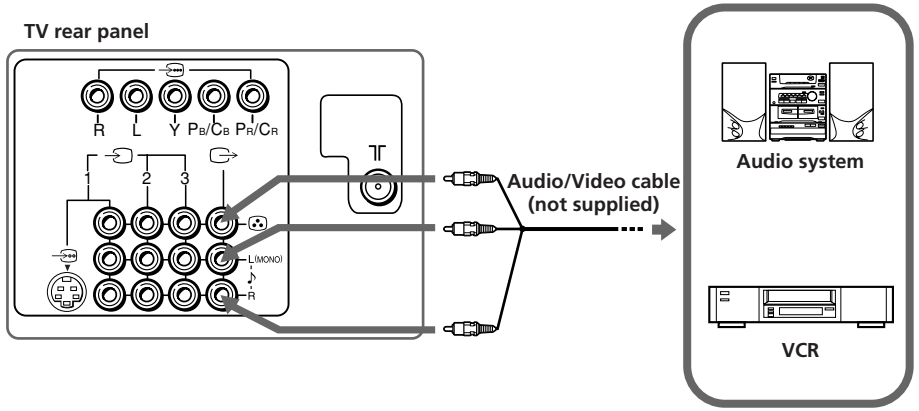
- If you connect a VCR to ⅂ (antenna input), preset the signal output from the VCR to the program number 0 on the TV.

# ■ Connecting optional components

## Connecting to the video input terminal ( ⇦ )




## Connecting to the monitor output terminal ( ⇨ )




continue

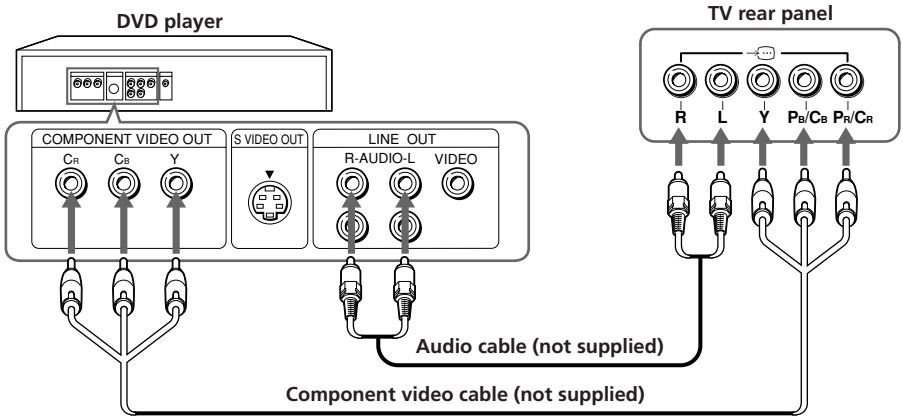
*continued*

## Connecting a DVD player to the component video input terminal ( )

1 Using an audio cable, connect R and L under (component video input) on your TV to the LINE OUT, AUDIO R and L output connectors on your DVD player.

2 Using a component video cable, connect Y, $P_B/C_B$, and $P_R/C_R$ under (component video input) on your TV to the COMPONENT VIDEO OUT Y, $C_B$, and $C_R$ output connectors on your DVD player.

3 Press DVD on the remote to watch the (component video input) and "DVD" will appear on your screen.




**Notes**

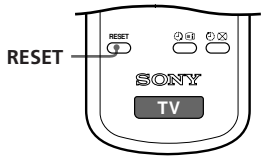
- Some DVD player terminals may be labeled differently:

| Connect | To (on the DVD player) |
|---|---|
| Y (green) | Y |
| $P_B/C_B$ (blue) | $C_B$, $P_B$, $C_b$ or B-Y |
| $P_R/C_R$ (red) | $C_R$, $P_R$, $C_r$ or R-Y |

- When both (S video) and (video) for 1 or 4 are connected at the same time, (S video) is automatically selected. To view (video), disconnect the S video cable.
- If you select "DVD" on your TV screen, the signal from the (monitor output) will not be output properly. This does not indicate a malfuncion.
- When receiving a progressive signal through the (component video input), "PIP" is not available, and "DRC-MF" and "GAME MODE" are not selectable.

# ■ Troubleshooting

If you have any problem while viewing your TV, you can either use the Reset function or check the Troubleshooting guide below. If the problem persists, contact your Sony dealer.

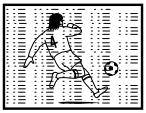



## Reset function

Press the RESET button on your remote control. Your TV will go blank for about half a second then the picture will reappear with "RESET" displayed on your TV screen for about 10 seconds.

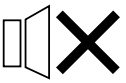
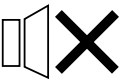
Pressing RESET will set your TV to the factory setting, but certain problems may be solved.

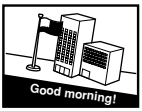
## Troubleshooting guide

| Symptom | Possible cause | Solutions | Page |
|---|---|---|---|
| **Snowy picture**  **Noisy sound** | • The connection is loose or the cable is damaged. | • Check the antenna cable and connection on the TV, VCR and at the wall. | 31 |
| | • The antenna setup is inappropriate. | • Check the antenna setup. Contact a Sony dealer for advice. | – |
| | • Channel presetting is inappropriate or incomplete. | • Display the "CH PRESET" menu and select "MANUAL PROGRAM" to preset the channel again. | 29 |
| | • Signal transmission is low. | • Try using a booster. | – |
| **Distorted picture** **Noisy sound** | • Broadcast signals are too strong. | • Display the "CH PRESET" menu and select "MANUAL PROGRAM". Then, select "SENS: LOW". | 30 |
| | | • Turn off or disconnect the booster if it is in use. | – |
| **Good picture** **Noisy sound** | • The TV system setting is inappropriate. | • Display the "CH PRESET" menu and select the appropriate TV system ("TV SYS"). | 29 |
| | • PIP sound is selected when PIP is displayed. | • Press SOUND or . | 13 |

continue

*continued*

| Symptom | Possible cause | Solutions | Page |
|---|---|---|---|
| **No picture**<br> | • The power cord, antenna or VCR is not connected. | • Check the power cord, antenna and VCR connections. | 31 |
| | • The TV is not turned on. | • Press I/⏻ (power). | 9 |
| **No sound**<br>  | | • Press ⏻ (main power) on the TV to turn off the TV for about five seconds, then turn it on again. | 8 |
| **Good picture**<br> | • The volume level is too low. | • Press + to increase the volume level. | 9 |
| | • The sound is muted. | • Press 🔇 to cancel the muting. | 9 |
| **No sound**<br>  | • PIP sound is selected when PIP is displayed. | • Press SOUND or ◔. | 13 |
| **Dotted lines or stripes**<br> | • There is local interference from cars, neon signs, hair dryers, power generators, etc. | • Do not use a hair dryer or other equipment near the TV. | – |
| | | • Check the antenna setup. Contact a Sony dealer for advice. | – |
| **Double images or "ghosts"**<br> | • Broadcast signals are reflected by nearby mountains or buildings. | • Use a highly directional antenna. | – |
| | | • Use the fine tuning ("FINE") function. | 30 |
| | • The antenna setup is inappropriate. | • Check the antenna setup. Contact a Sony dealer for advice. | – |
| | • Use of a booster is inappropriate. | • Turn off or disconnect the booster if it is in use. | – |
| **No color**<br> | • The color level setting is too low. | • Display the "PICTURE" menu and select "ADJUST" of "PICTURE MODE", then adjust the "COLOR" level. | 22 |
| | • The color system setting is inappropriate. | • Display the "SETUP" menu and check the color system ("COLOR SYS") setting (usually set this to "AUTO"). | 26 |
| | • The antenna setup is inappropriate. | • Check the antenna setup. Contact a Sony dealer for advice. | – |

| Symptom | Possible cause | Solutions | Page |
|---|---|---|---|
| **Picture slant**<br>  | • The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV. | • Keep external speakers or other electrical equipment away from the TV.<br>• Display the "SETUP" menu and adjust "PIC ROTATION" so that the picture position is optimal. | –<br>26 |
| **Abnormal color patches**<br> | • The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV. | • Keep external speakers or other equipment away from the TV. Do not move the TV while the TV is turned on. Press ⏻ (main power) on the TV to turn off the TV for about 15 minutes, then turn it on again to demagnetize the TV. | – |
| **TV cannot receive stereo broadcast sound.** | • The stereo reception setting is inappropriate. | • Press A/B until "AUTO" appears on the screen. | 16 |
| **or** | • The connection is loose or the cable is damaged. | • Check the antenna cable and connection on the TV, VCR and on the wall. | 31 |
| **Stereo broadcast sound switches on and off or is distorted. (KV-DR29M39 only)** | • The antenna setup is inappropriate. | • Check the antenna setup. Contact a Sony dealer for advice. | – |
| **"100" appears at the top of the screen and there is no Teletext display.** | • The channel carries no Teletext broadcast. | — | 17 |
| **Teletext display is incomplete (snowy picture or double images).** | • Connection is loose or the cable is damaged. | • Check the antenna cable and connection on the TV, VCR, and at the wall. | 31 |
| | • The antenna direction is inappropriate. | • Adjust the antenna direction. Contact a Sony dealer for advice. | – |
| | • Signal transmission is too low. | • Try using a booster.<br>• Use the fine tuning ("FINE") function. | –<br>30 |

**continue**

*continued*

| Symptom | Possible cause | Solutions | Page |
|---|---|---|---|
| **The ⏻ (standby) indicator on your TV flashes red several times after every three seconds.** | • Your TV's self-diagnosis function indicates the possible problems. | • Count the number of times the ⏻ (standby) indicator flashes. Press ⏻ (main power) to turn off your TV. Contact your nearest Sony service center. | – |
| **Cannot play shooting games.** | • Some shooting games which involve pointing a light beam at the TV screen with an electronic gun or rifle cannot be used with your TV. For details, see the instruction manual supplied with the video game software. | — | – |
| **TV cabinet creaks.** | • Changes in room temperature sometimes make the TV cabinet expand or contract, causing a noise. This does not indicate a malfunction. | — | – |
| **A small "boom" sound is heard when the TV is turned on.** | • The TV's demagnetizing function is working. This does not indicate a malfunction. | — | – |

# ■ Specifications

| | KV-DR34M89 | KV-DR29M89<br>KV-DR29M39 | Note |
|---|---|---|---|
| **Power requirements** | 110-240 V AC, 50/60 Hz | | |
| | 220-240 V AC, 50/60 Hz | | New Zealand only |
| **Power consumption (W)** | Indicated on the rear of the TV | | |
| **Television system** | B/G, I, D/K, M | | |
| **Color system** | PAL, PAL 60, SECAM, NTSC3.58, NTSC4.43 | | |
| **Stereo/Bilingual system** | NICAM Stereo/Bilingual B/G, I;<br>A2 Stereo/Bilingual B/G | | KV-DR29M39 only |
| **Teletext language** | English, Arabic, French | | |
| **Channel coverage**<br>**B/G** | VHF : E2 to E12<br>UHF : E21 to E69<br>CATV : S01 to S03, S1 to S41 | | |
| | VHF : 1 to 11<br>UHF : 21 to 69<br>CATV : S01 to S03, S1 to S41 | | New Zealand only |
| **I** | UHF : B21 to B68<br>CATV : S01 to S03, S1 to S41 | | |
| **D/K** | VHF : C1 to C12, R1 to R12<br>UHF : C13 to C57, R21 to R60<br>CATV : S01 to S03, S1 to S41, Z1 to Z39 | | |
| **M** | VHF : A2 to A13<br>UHF : A14 to A79<br>CATV : A-8 to A-2, A to W+4, W+6 to W+84 | | |
| **(Antenna)** | 75-ohm external terminal | | |
| **Audio output (Speaker)** | 6W + 6W | | |
| **3D WOOFER** | 15W | | |
| **Number of terminal** | | | |
| **(Video)** | Input: 4 Output: 1 | Phono jacks; 1 Vp-p, 75 ohms | |
| **(Audio)** | Input: 4 Output: 1 | Phono jacks; 500 mVrms | |
| **(S Video)** | Input: 2 | Y: 1 Vp-p, 75 ohms, unbalanced, sync negative<br>C: 0.286 Vp-p, 75 ohms | |
| **(Component Video)** | Input: 1 | Phono jacks;<br>Y: 1 Vp-p, 75 ohms, sync negative<br>$P_B/C_B$: 0.7 Vp-p, 75 ohms<br>$P_R/C_R$ 0.7 Vp-p, 75 ohms<br>Audio: 500 mVrms | |
| **(Headphone)** | Output: 1 | Stereo minijack | |
| **Picture tube** | 34 in. | 29 in. | |
| **Tube size (cm)** | 86 | 72 | Measured diagonally |
| **Screen size (cm)** | 80 | 68 | Measured diagonally |
| **Dimensions (w/h/d, mm)** | 894 × 690 × 569 | 786 × 596 × 514 | |
| **Mass (kg)** | 85 | 57 | |

Design and specifications are subject to change without notice.

http://www.sony.net/
Sony Corporation

SONY

4-088-356-**11** (1)

# *Trinitron Color TV*
# *เครื่องรับโทรทัศน์สี Trinitron*

## Operating Instructions **GB**

- Before operating the unit, please read this manual thoroughly and retain it for future reference.

## คู่มือการใช้งาน **ไทย**

- ก่อนเริ่มการใช้งานกรุณาอ่านคู่มือนี้โดยละเอียดทั้งหมดและเก็บรักษาคู่มือไว้สำหรับอ้างอิงในโอกาสต่อ ๆไป

FD Trinitron
WEGA

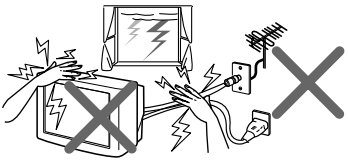
*KV-DR34*
*KV-DR29*

© 2002 Sony Corporation

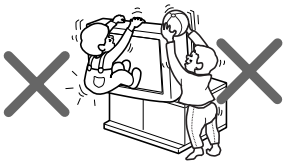
M69
M63

# WARNING

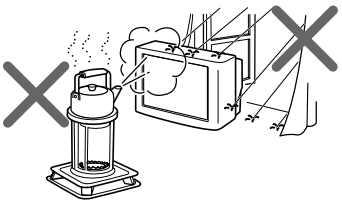
- Dangerously high voltages are present inside the TV.
- TV operating voltage: 220 – 240 V AC.
- Do not plug in the power cord until you have completed making all other connections; otherwise a minimum leakage current might flow through the antenna and other terminals to ground.
- To avoid battery leakage and damage to the remote, remove the batteries from the remote if you are not going to use it for several days. If any liquid leaks from the batteries and touches your skin, immediately wash it away with water.



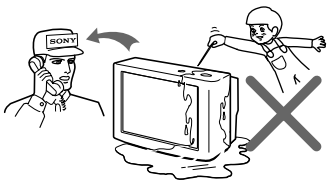
For your own safety, do not touch any part of the TV, the power cord and the antenna cable during lightning storms.



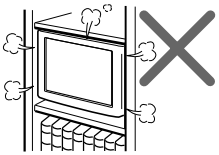
For children's safety, do not leave children alone with the TV. Do not allow children to climb onto it.



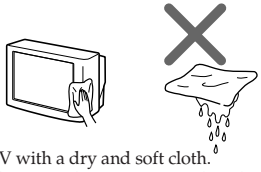
To prevent fire or shock hazard, do not expose the TV to rain or moisture.



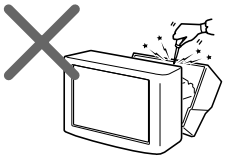

Do not operate the TV if any liquid or solid object falls into it. Have it checked immediately by qualified personnel only.



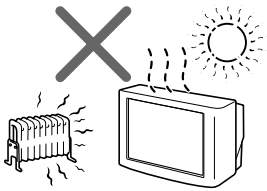
Do not block the ventilation openings of the TV.
Do not install the TV in a confined space, such as a bookcase or built-in cabinet.



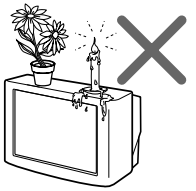
Clean the TV with a dry and soft cloth.
Do not use benzine, thinner, or any other chemicals to clean the TV. Do not attach anything (e.g., adhesive tape, cellophane tape, glue) on the painted cabinet of the TV. Do not scratch the picture tube.



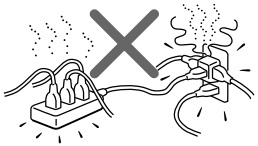
Do not open the cabinet and the rear cover of the TV as high voltages and other hazards are present inside the TV. Refer servicing and disposal of the TV to qualified personnel.



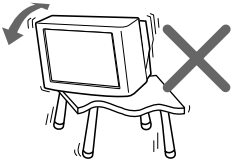
Your TV is recommended for home use only.
Do not use the TV in any vehicle or where it may be subject to excessive dust, heat, moisture or vibrations.



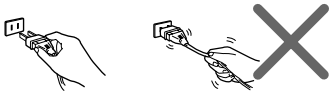
Do not place any objects on the TV.



Do not plug in too many appliances to the same power socket. Do not damage the power cord.



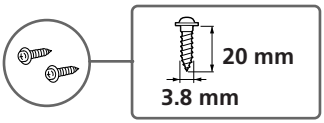
Install the TV on a stable TV stand and floor which can support the TV set weight. Ensure that the TV stand surface is flat and its area is larger than the bottom area of the TV.



Pull the power cord out by the plug. Do not pull the power cord itself. Even if your TV is turned off, it is still connected to the AC power source (mains) as long as the power cord is plugged in. Unplug the TV before moving it or if you are not going to use it for several days.

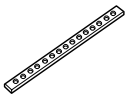
# ■ Securing the TV

To prevent the TV from falling, use the supplied screws, clamps and band to secure the TV.

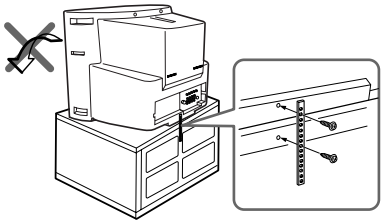



screws

clamps

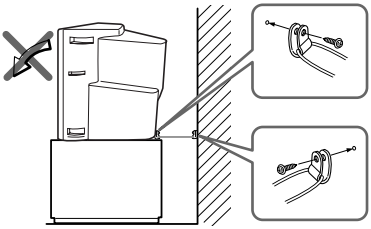


band



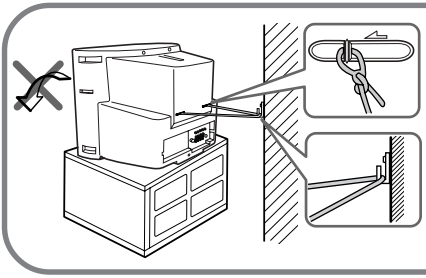
Screw the band to the TV stand and to the provided hole at the rear of your TV.

**or**



(1) Put a cord or chain through the clamps.
(2) Screw one clamp to a wall or pillar and the other clamp to the provided hole at the rear of your TV.

**or**



(1) Attach each end of a cord or chain to the provided holders at the rear of your TV.
(2) Securely fix the attached cord or chain to a wall or pillar using an attachment which can support the TV set weight.

**Note**

- Use only the supplied screws. Use of other screws may damage the TV.

# Table of Contents


## Installation

Getting Started ..... **6**
Setting up your TV ("INITIAL SETUP") ..... **7**

## Overview of Controls

TV front and rear panels ..... **8**
Remote control ..... **9**

## Advanced Operations

Selecting the picture and sound modes ..... **11**
Viewing higher quality pictures with DRC-MF ..... **12**
Viewing the picture in wide mode .. **12**
Watching Picture-in-Picture (PIP) (KV-DR34M69 only) ..... **13**
Selecting a TV program using PIP (KV-DR34M69 only) ..... **14**
Listening with surround sound ..... **14**
Setting the timers ..... **15**
Enjoying stereo or bilingual programs ..... **16**
Viewing Teletext (KV-DR34M69 only) ..... **17**

## Menu Adjustment

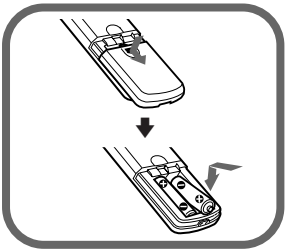
Introducing the menu system ..... **18**
Changing the "PICTURE" setting ... **21**
Changing the "SOUND" setting ..... **23**
Changing the Picture-in-Picture ("PIP") setting (KV-DR34M69 only) ..... **25**
Changing the "SETUP" setting ..... **26**
Changing the Channel Preset ("CH PRESET") setting ..... **28**

## Additional Information

Connecting optional components ... **31**
Troubleshooting ..... **33**
Specifications ..... **Back cover**


GB

# ■ Getting Started

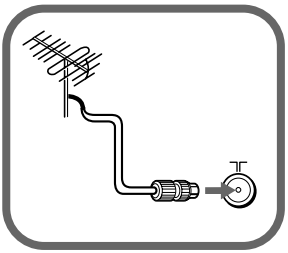


## Step 1

Insert the batteries (supplied) into the remote.

**Note**

- Do not use old or different types of batteries together.

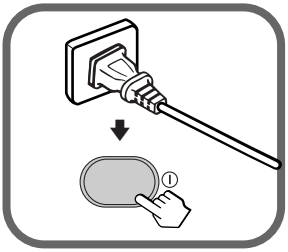


## Step 2

Connect the antenna cable (not supplied) to ⅂⊢ (antenna input) at the rear of the TV.

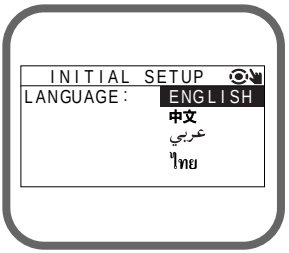
**Tip**

- You can also connect your TV to other optional components (see page 31).



## Step 3

Plug in the power cord, then press ⏻ on the TV to turn it on.

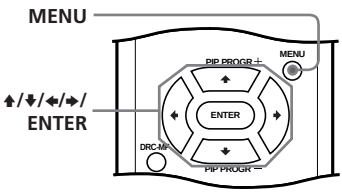



## Step 4

Set up the TV by following the instructions of the "INITIAL SETUP"menu (see page 7).

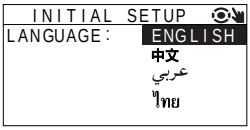
# ■ Setting up your TV ("INITIAL SETUP")

When you turn on your TV for the first time, the "INITIAL SETUP" menu will appear. This menu allows you to change the menu language, adjust the picture position and preset the TV channels automatically.



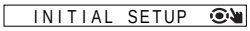

**1** Press ↑ or ↓ to select the desired menu language (e.g.,"ENGLISH"), then press ENTER.

The selected menu language appears.




**2** Press ↑ or ↓ (or ←/→), then press ENTER to adjust the picture position if it is not aligned to the TV screen.

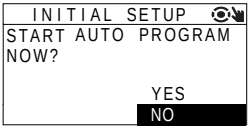
The ⊞ or ⊟ icon on the screen flashes while adjusting.

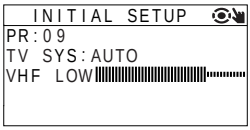


**3** Press ↑ or ↓ to select "YES", then press ENTER to preset the channels automatically (see page 28).

The screen will indicate automatic presetting is in progress.

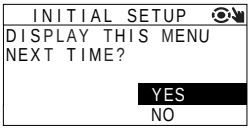
To skip automatic channel presetting, select "NO", then press ENTER.




**4** Press ↑ or ↓ to select "NO", then press ENTER. The "INITIAL SETUP" menu will not appear again the next time you turn on the TV by pressing ⏻.

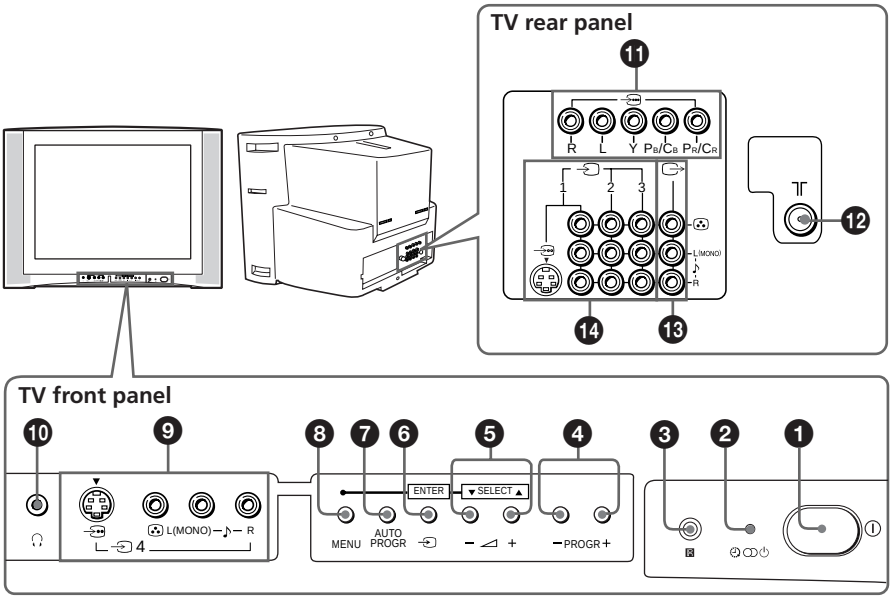
To allow this menu to appear again, select "YES", then press ENTER.




**Tip**

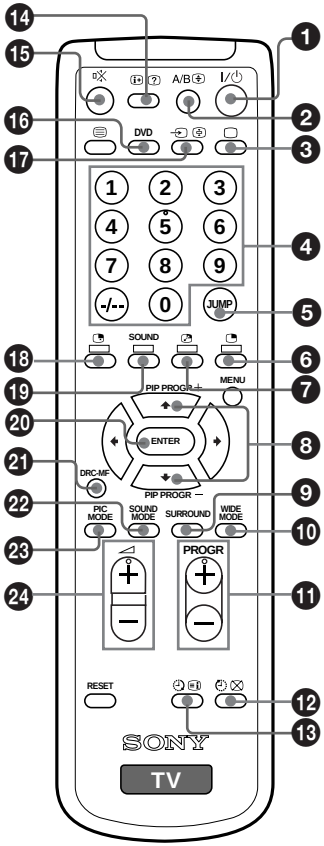
- You can immediately go to the end of the "INITIAL SETUP" menu by pressing MENU.
- You can also set up your TV using the menu system (see page 18).

# ■ TV front and rear panels




| Button/Terminal | Function | Page |
|---|---|---|
| ❶ ⏻ | Turn off or turn on the TV. | – |
| ❷ ⏻ | Standby indicator. | – |
| ❷ 🕘 | Wake Up indicator. | 15 |
| ❷ ◯◯ | Stereo/bilingual indicator. | 16 |
| ❸ | Remote control sensor. | – |
| ❹ PROGR +/– | Select program number. | – |
| ❺ +/– | Adjust volume. | – |
| ❻ | Select TV or video input. | – |
| ❼ AUTO PROGR | Preset channels automatically. | – |
| Menu operations | | |
| ❺ SELECT ▼/▲ | Select and adjust items. | 20 |
| ❻ ENTER | Confirm selected items. | 20 |
| ❽ MENU | Display or cancel the menu. | 20 |
| ❾ 4 | Video input terminal 4. | 31 |
| ❿ | Headphone jack. | – |
| ⓫ | Component video input terminal. | 32 |
| ⓬ | Antenna input terminal. | 31 |
| ⓭ | Monitor output terminal. | 31 |
| ⓮ 1, 2, 3 | Video input terminal 1, 2, 3. | 31 |

# ■ Remote control

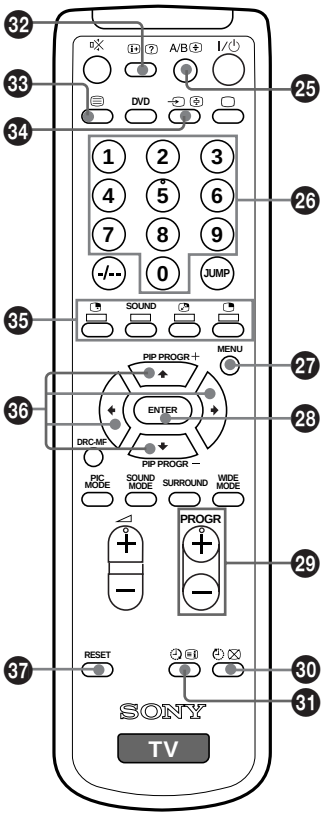



| Button | Function | Page |
|---|---|---|
| ❶ I/⏻ | Turn off temporarily or turn on the TV. | – |
| ❸ ▭ | Display the TV input. | – |
| ❹ 0 – 9, -/-- | Input numbers. | – |
| ❺ JUMP | Jump to previous program number. | – |
| ❾ SURROUND | Select surround mode. | 14 |
| ❿ WIDE MODE | Select wide-mode (16:9). | 12 |
| ⓫ PROGR +/– | Select program number. | – |
| ⓮ i+ | Display on-screen information. | – |
| ⓯ 🔇 | Mute the sound. | – |
| ⓰ DVD | Select component video input. | 32 |
| ⓱ ⏎ | Select TV or video input. | 31 |
| ㉑ DRC-MF | Select DRC-MF mode. | 12 |
| ㉒ SOUND MODE | Select sound mode. | 11 |
| ㉓ PIC MODE | Select picture mode. | 11 |
| ㉔ ◿ +/– | Adjust volume. | – |
| **Timer operations** | | |
| ⓬ ⏲ | Set TV to turn off automatically. | 15 |
| ⓭ ⏲ | Set TV to turn on automatically. | 15 |
| **PIP operations (yellow label) (KV-DR34M69 only)** | | |
| ❻ ◔ | Display a sub screen. | 13 |
| ❼ ⤢ | Swap main and sub screens. | 13 |
| ❽ PIP PROGR +/ PIP PROGR – | Display and change programs in the sub screen. | 13,14 |
| ⓲ ◔ | Select a video input in the sub screen. | 13 |
| ⓳ SOUND | Swap sound between main and sub screen. | 13 |
| ⓴ ENTER | Change sub screen to main screen. | 14 |
| **Stereo/bilingual operations** | | |
| ❷ A/B | Select stereo/bilingual mode. | 16 |



continue

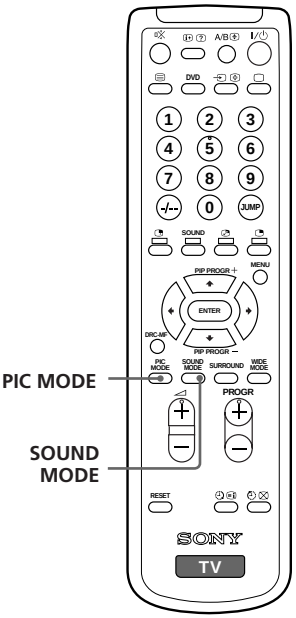
*continued*




| Button | Function | Page |
|---|---|---|
| **Menu operations** | | |
| 27 MENU | Display or cancel the menu. | 20 |
| 28 ENTER | Confirm selected items. | 20 |
| 36 ↑, ↓, ←, → | Select and adjust items. | 20 |
| **Teletext operations (green label) (KV-DR34M69 only)** | | |
| 25 ⊕ | Enlarge the Teletext display. | 17 |
| 26 0 – 9 | Input Teletext page number | 17 |
| 29 PROGR +/– | Display the next or previous page. | 17 |
| 30 ⊠ | Show TV screen while waiting for Teletext page. | 17 |
| 31 ⓘ | Display Teletext service contents. | 17 |
| 32 ? | Reveal concealed information. | 17 |
| 33 ☰ | Display Teletext broadcast. | 17 |
| 34 ⊕ | Stop Teletext display from scrolling. | 17 |
| 35 ▬ (red, green, yellow, blue) | Access a FASTEXT menu. | 17 |
| 37 RESET | Set TV to factory setting. | 33 |

# ■ Selecting the picture and sound modes

You can select picture and sound modes and adjust the setting to your preference in the “PERSONAL” option.




## Selecting the picture mode

Press PIC MODE to select the desired picture mode.

| Select | To |
|---|---|
| “DYNAMIC” | view high contrast pictures. |
| “STANDARD” | view normal pictures. |
| “HI-FINE” | view higher density pictures with mild contrast. |
| “PERSONAL” | receive the last adjusted picture setting from the “ADJUST” option in the “PICTURE” menu (see page 22). |

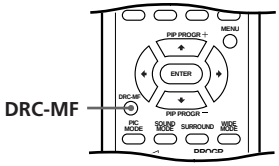
## Selecting the sound mode

Press SOUND MODE to select the desired sound mode.

| Select | To |
|---|---|
| “♪ DYNAMIC” | listen to dynamic and clear sound that emphasizes both the low and high tones. |
| “♪ DRAMA” | listen to sound that emphasizes voice and high tones. |
| “♪ SOFT” | listen to soft sound. |
| “♪ PERSONAL” | receive the last adjusted sound setting from the “ADJUST” option in the “SOUND” menu (see page 24). |

# ■ Viewing higher quality pictures with DRC-MF

The Digital Reality Creation-Multi Function (DRC-MF) feature allows you to enjoy higher quality pictures on your TV. You can use the DRC-MF button to select "DRC1250" or "DRC PROGRESSIVE".




| Select | To |
|---|---|
| "DRC1250" | view super real (higher density) pictures. |
| "DRC PROGRESSIVE" | reduce jitter of any small areas or scanning lines (e.g., letters or the edge of objects) on the screen. |

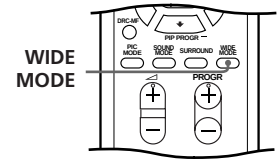
**Note**

- The DRC-MF mode is not selectable when the "GAME MODE" or Picture-in-Picture ("PIP") mode is turned on.

The DRC-MF logo ( DRC-MF Digital Reality Creation ) and "DRC-MF" are trademarks of Sony Corporation.

# ■ Viewing the picture in wide mode

When receiving a wide-mode (16:9) signal, the picture will appear "squeezed" (compressed) on your screen. Use the WIDE MODE button to view the picture with the optimal effect.

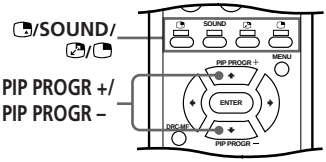



| Select | To |
|---|---|
| "ON" | view the picture in wide-mode (16:9). |
| "OFF" | cancel wide-mode (16:9). |

# ■ Watching Picture-in-Picture (PIP)

**► KV-DR34M69 only**

With the PIP feature, you can display two different TV programs or video input at the same time by using the ◔ button.




| To | Press |
|---|---|
| Display a sub screen | ◔.<br>To cancel the sub screen, press the button again. |
| Change a program number in the sub screen | PIP PROGR + or<br>PIP PROGR –. |
| Select a video input in the sub screen | ◔. |
| Swap pictures between the main and sub screens | ◔. |
| Swap sound between the main and sub screens<br><br>A "♪" symbol will appear next to the program number or video input display to indicate which screen you are hearing. | SOUND. |

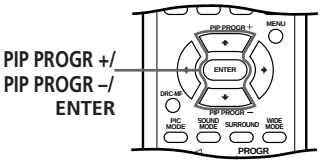
**Notes**

- The DRC-MF mode is not selectable when PIP is turned on.
- The picture and sound from the ⇨ (monitor output) terminals will always be from the main screen, even when you select the sub screen sound by pressing SOUND (see page 31).

# ■ Selecting a TV program using PIP

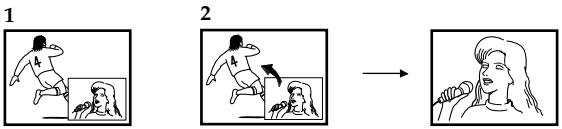
**▶ KV-DR34M69 only**

You can select your desired TV program directly from the PIP sub screen by using the PIP PROGR +/– buttons.



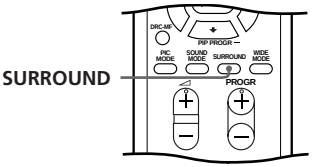

**1** Press PIP PROGR +/– until the desired program appears in the sub screen.

**2** Press ENTER to change the sub screen program to the main screen.




# ■ Listening with surround sound

You can use the SURROUND button to listen to the sound effects of a concert hall or movie theater.



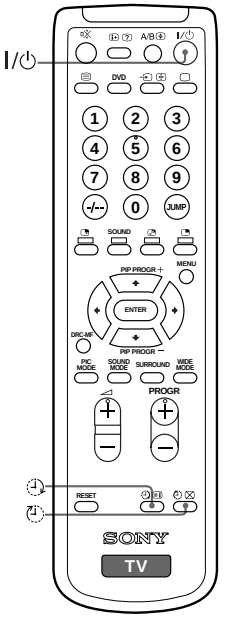

| Select | To |
|---|---|
| "TruSurround" | listen to the surround sound that spreads out to the rear of a room. |
| "SIMULATED" | listen to monaural sound with a stereo-like effect. |
| "OFF" | cancel surround sound. |

The surround of your TV is categorized as TruSurround.

TruSurround™ is a trademark of SRS Labs, Inc. SRS and the SRS symbol are registered trademarks of SRS Labs, Inc. in the United States and selected foreign countries. SRS and TruSurround are incorporated under license from SRS Labs, Inc. and are protected under United States Patent Nos. 4,748,669 and 4,841,572 with numerous additional issued and pending foreign patents.

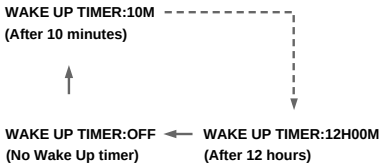
# ■ Setting the timers

You can set your TV to turn on and off automatically by using the WAKE UP and SLEEP timers respectively.




## Setting the Wake Up timer

**1** Press ⏲ until the desired period of time appears on the screen.




The Wake Up timer starts immediately after you have set it.

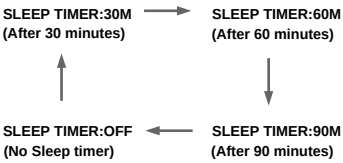
**2** Select the program number or video input you want to wake up to.

**3** Press I/⏻, or set the Sleep timer if you want the TV to turn off automatically.

The ⏲ indicator on the TV lights up orange when the TV goes into standby mode.

## Setting the Sleep timer

Press ⏲ until the desired period of time appears on the screen.



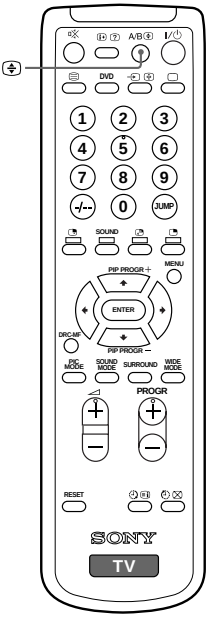

The Sleep timer starts immediately after you have set it.

**Notes**

- You can also cancel the Wake Up and Sleep timers by turning off the TV's main power.
- If no buttons are pressed for more than two hours after the TV is turned on using the Wake Up timer, the TV automatically goes into standby mode.

# ■ Enjoying stereo or bilingual programs

You can enjoy stereo sound or bilingual programs of NICAM and A2 stereo systems by using the A/B button.




## When receiving a NICAM program

| Broadcasting | On-screen display (Selected sound) |
|---|---|
| NICAM stereo | NICAM (Stereo sound) → MONO (Regular sound) |
| NICAM bilingual | NICAM MAIN (Main sound) → NICAM SUB (Sub sound) → MONO (Regular sound) |
| NICAM monaural | NICAM MAIN (Main sound) → MONO (Regular sound) |

## When receiving an A2 program

| Broadcasting | On-screen display (Selected sound) |
|---|---|
| A2 stereo | STEREO (Stereo sound) → MONO (Regular sound) |
| A2 bilingual | MAIN (Main sound) → SUB (Sub sound) |

**Notes**

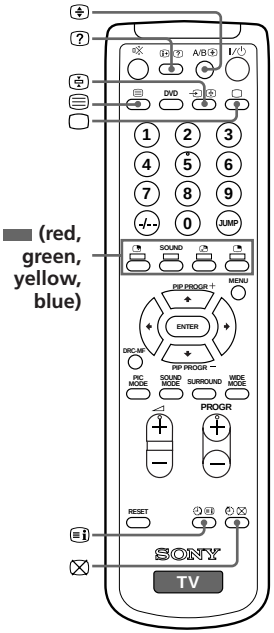
- If the stereo sound is noisy when receiving a stereo program, select "MONO". The sound becomes monaural, but the noise is reduced.
- If the sound is distorted when receiving a monaural program through ⅂⌜ (antenna input), press A/B repeatedly until "MONO" appears on the screen. To cancel the monaural sound setting, press A/B again until "AUTO" appears on the screen.

# ■ Viewing Teletext

### ► KV-DR34M69 only

Some TV stations broadcast an information service called Teletext which allows you to receive various information, such as stock market reports and news.

You can use the buttons on the remote to view Teletext.



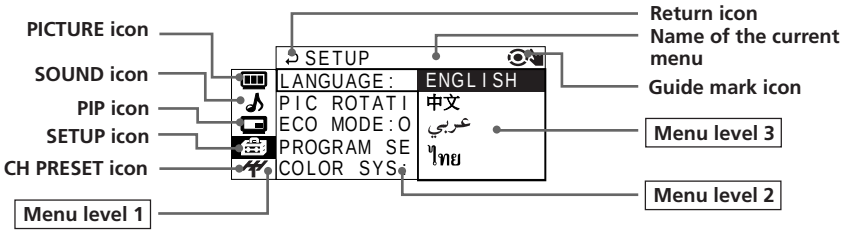

| To | Do this |
|---|---|
| display a Teletext page on the TV picture | Press ☰. Each time you press ☰, the screen changes as follows: Teletext → Teletext and TV → TV. If there is no Teletext broadcast, "100" is displayed at the top left corner of the screen. |
| check the contents of a Teletext service | Press ⓘ. An overview of the Teletext contents, including page numbers, appears on the screen. |
| select a Teletext page | Press the number buttons to enter the three-digit page number of the desired Teletext page. If you make a mistake, reenter the correct page number. To access the next or previous page, press PROGR +/–. |
| hold (pause) a Teletext display | Press ⇳ to display the symbol "⇳" at the top left corner of the screen. To resume normal Teletext viewing, press ⇳ or ☰. |
| reveal concealed information (e.g., an answer to a quiz) | Press ?. To conceal the information, press the button again. |
| enlarge the Teletext display | Press ⇕. Each time you press ⇕, the Teletext display changes as follows: Enlarge upper half → Enlarge lower half → Normal size. |
| stand by for a Teletext page while watching a TV program | 1 Enter the Teletext page number that you want to refer to, then press ⊠.<br>2 When the page number is displayed, press ☰ to show the text. |
| select a FASTEXT menu or the colored boxes | Press ■ (red, green, yellow and blue) that corresponds to the desired menu or page number. |
| turn off Teletext | Press ▭. |

**Note**

- The FASTEXT feature can be used only when the FASTEXT broadcast is available.

# ■ Introducing the menu system

The MENU button lets you open a menu and change the settings of your TV. The following is an overview of the menu system.




| Level 1 | Level 2 | Level 3/Function | Page |
|---|---|---|---|
| "PICTURE" | "DRC-MF" | Select the "DRC-MF" mode:<br>"DRC1250" → "PROGRESSIVE" | 21 |
| | "PICTURE MODE" | Select the picture mode:<br>"DYNAMIC" → "STANDARD" → "HI-FINE" → "PERSONAL" → "ADJUST" | |
| | "ADJUST" | Adjust the "PERSONAL" option:<br>"PICTURE" → "COLOR" → "BRIGHT" → "HUE" → "SHARP" | |
| | "3D-NR" | Reduce picture noise:<br>"ON" → "OFF" | |
| | "WIDE MODE" | Change the picture size. | |
| | "GAME MODE" | Adjust the picture settings for video games. | |
| "SOUND" | "SOUND MODE" | Select the sound mode:<br>"DYNAMIC" → "DRAMA" → "SOFT" → "PERSONAL" → "ADJUST" | 23 |
| | "ADJUST" | Adjust the "PERSONAL" option:<br>"BASS" → "TREBLE" → "BALANCE" → "BBE"* | |
| | "SURROUND" | Select the "SURROUND" mode:<br>"TruSurround" → "SIMULATED" →"OFF" | |
| | "INTELLIGENT VOL" | Adjust volume automatically. | |
| "PIP" (KV-DR34M69 only) | "POSITION" | Change the position of the sub screen. | 25 |
| | "PIP" | Display a sub screen within the main picture. | |
| | "SWAP" | Exchange pictures between main screen and sub screen. | |

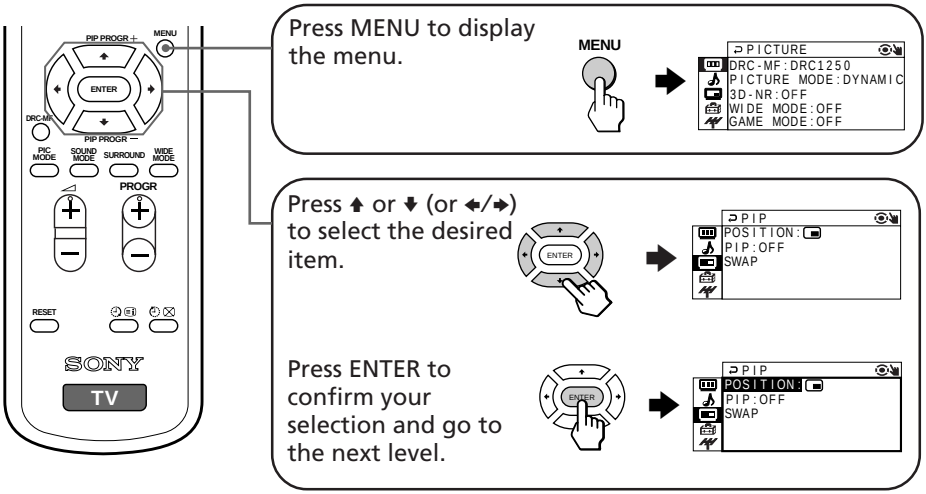
| Level 1 | Level 2 | Level 3/Function | Page |
|---|---|---|---|
| "SETUP" | "LANGUAGE" | Change the menu language: "ENGLISH" → "中文"(Chinese) → "عربي"(Arabic) → "ไทย"(Thai) | 26 |
| | "PIC ROTATION" | Adjust the picture position. | |
| | "ECO MODE" | Reduce power consumption of your TV. | |
| | "PROGRAM SETUP" | Adjust each program number settings. | |
| | "COLOR SYS" | Select the color system: "AUTO" →" PAL" → "SECAM" → "NTSC3.58" → "NTSC4.43" | |
| "CH PRESET" | "AUTO PROGRAM" | Preset channels automatically. | 28 |
| | "MANUAL PROGRAM" | Preset channels manually. | |
| | "TV SYS" | Select the TV system: "B/G" → "I" → "D/K" → "M" | |

* The BBE is manufactured by Sony Corporation under license from BBE Sound, Inc. It is covered by U.S. Patent No. 4,638,258 and No. 4,482,866. The word "BBE" and the BBE symbol are the trademarks of BBE Sound, Inc.

**continue**

*continued*

## How to use the menu



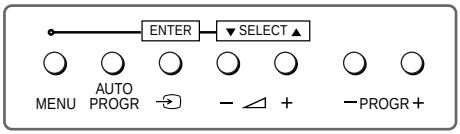

## Other menu operations

| To | Press |
|---|---|
| Adjust the setting value | ↑, ↓, ← or →. |
| Move to the next/previous menu level | ← or →. |
| Cancel the menu | MENU. |

**Tips**

- If you want to exit from Menu level 2 to Menu level 1, press ↑ or ↓ until the return icon ( ⮌ ) is highlighted, then press ENTER.
- Some of the menu items can be operated directly using the remote buttons.
- The MENU, ENTER, and SELECT ▼/▲ buttons on the TV can also be used for the operations above.

**Front of TV**

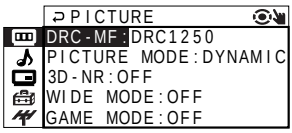


# ■ Changing the “PICTURE” setting

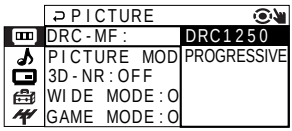
The “PICTURE” menu allows you to adjust the picture settings.

**1** Press MENU.

**2** Make sure the “PICTURE” icon ( ) is selected, then press ENTER.




**3** Press ↑ or ↓ to select the desired item (e.g., “DRC-MF”), then press ENTER.




| Select | To |
|---|---|
| “DRC-MF” | choose either “DRC1250” or “PROGRESSIVE” (see page 12). |
| “PICTURE MODE” | choose either “DYNAMIC”, “STANDARD”, “HI-FINE”, “PERSONAL”*, or “ADJUST” (see page 11). |
| “3D-NR” | adjust picture signal automatically to reduce noise.<br>Press ↑ or ↓ to select “ON”, then press ENTER.<br>To cancel, select “OFF”, then press ENTER. |
| “WIDE MODE” | choose either “ON” or “OFF” (see page 12). |
| “GAME MODE” | adjust the picture setting that is suitable to view video games.<br>Press ↑ or ↓ to select “ON”, then press ENTER.<br>To cancel, select “OFF”, then press ENTER. |

* When the “PERSONAL” mode is selected, you can receive the last adjusted picture settings from the “ADJUST” option (see page 22).

**Notes**

- “GAME MODE” is available only when receiving signals through (video input), (S video input), or (component video input).
- The DRC-MF mode is not selectable when GAME MODE is turned on.

**continue**

*continued*

## Adjusting the "ADJUST" items under "PICTURE MODE"

**1** Press ↑ or ↓ to select the desired item (e.g.,"COLOR"), then press ENTER.

**2** Adjust the value according to the following table, then press ENTER.

| For | Press ↓ or ← to | Press ↑ or → to |
|---|---|---|
| "PICTURE" | decrease picture contrast. | increase picture contrast. |
| "COLOR" | decrease color intensity. | increase color intensity. |
| "BRIGHT" | darken the picture. | brighten the picture. |
| "HUE" | increase red picture tones. | increase green picture tones. |
| "SHARP" | soften the picture. | sharpen the picture. |

**Notes**

- "HUE" can be adjusted for the NTSC color system only.
- Reducing sharpness ("SHARP") can also reduce picture noise.

**3** Repeat the above steps to adjust other items.

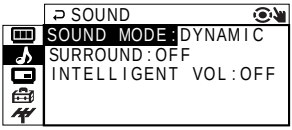
The adjusted settings will be received when you select "PERSONAL".

# ■ Changing the “SOUND” setting

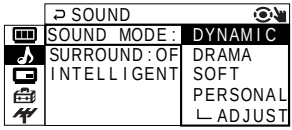
The “SOUND” menu allows you to adjust the sound settings.

**1** Press MENU.

**2** Press ↑ or ↓ to select the “SOUND” icon (♪), then press ENTER.




**3** Press ↑ or ↓ to select the desired item (e.g., “SOUND MODE”), then press ENTER.




| Select | To |
|---|---|
| “SOUND MODE” | choose either “DYNAMIC”, “DRAMA”, “SOFT”, “PERSONAL”*, or “ADJUST” (see page 11). |
| “SURROUND” | choose either “TruSurround”, “SIMULATED” or “OFF” (see page 14). |
| “INTELLIGENT VOL” | adjust the volume of all program numbers and video inputs automatically.<br>Press ↑ or ↓ to select “ON”, then press ENTER.<br>To cancel, select “OFF”, then press ENTER. |

* When the “PERSONAL” mode is selected, you can receive the last adjusted sound settings from the “ADJUST” option (see page 24).

continue

*continued*

## Adjusting the "ADJUST" items under "SOUND MODE"

**1** Press ↑ or ↓ to select the desired item (e.g., "BALANCE"), then press ENTER.

**2** Adjust the value according to the following table, then press ENTER .

| For | Press ↓ or ← to | Press ↑ or → to |
|---|---|---|
| "BASS" | decrease the bass. | increase the bass. |
| "TREBLE" | decrease the treble. | increase the treble. |
| "BALANCE" | increase the left speaker's volume. | increase the right speaker's volume. |
| "BBE" | select "HIGH" for higher enhancement of sound clarity;<br>select "LOW" for lower enhancement of sound clarity;<br>select "OFF" to cancel BBE sound. | |

**3** Repeat the above steps to adjust other items.

The adjusted settings will be received when you select "PERSONAL".

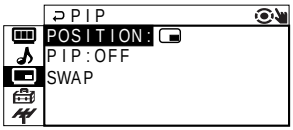
# ■ Changing the Picture-in-Picture (“PIP”) setting

**► KV-DR34M69 only**

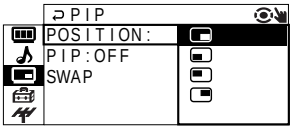
The “PIP” menu allows you to display a sub screen, change the sub screen position and exchange pictures between the main and sub screens.

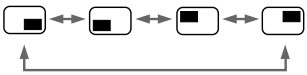
**1** Press MENU.

**2** Press ↑ or ↓ to select the “PIP” icon (), then press ENTER.




**3** Press ↑ or ↓ to select the desired item (e.g., “POSITION”), then press ENTER.



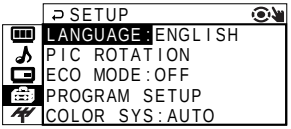

| Select | To |
|---|---|
| “POSITION” | change the position of the sub screen.<br>Press ↑ or ↓ to select the desired position, then press ENTER .<br>  |
| “PIP” | display a sub screen.<br>Press ↑ or ↓ to select “ON”, then press ENTER .<br>To cancel, press  or select “OFF”, then press ENTER . |
| “SWAP” | exchange pictures between the main screen and sub screen. |

# ■ Changing the “SETUP” setting

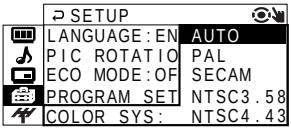
The “SETUP” menu allows you to change the menu language, adjust the picture position, reduce your TV power consumption, set up your program numbers and select the color system.

**1** Press MENU.

**2** Press ↑ or ↓ to select the “SETUP” icon (), then press ENTER.




**3** Press ↑ or ↓ to select the desired item (e.g., “COLOR SYS”), then press ENTER.

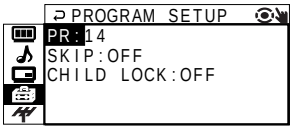



| Select | To |
|---|---|
| “LANGUAGE” | change the menu language.<br>Press ↑ or ↓ to select either “ENGLISH”, “中文” (Chinese), “عربي” (Arabic), or “ไทย” (Thai) then press ENTER.<br>The selected menu language appears. |
| “PIC ROTATION” | adjust the picture position when it is not aligned with the TV screen.<br>Press ↑ , → , ↓ or ← to adjust the picture position, then press ENTER.<br> |
| “ECO MODE” | reduce power consumption of your TV to save energy.<br>Press ↑ or ↓ to select “ON”, then press ENTER.<br>To cancel, select “OFF”, then press ENTER.<br>When you press  or turn on the TV, ECO MODE ( ) symbol will appear on the screen for about 40 seconds. |
| “PROGRAM SETUP” | adjust each channel settings (see **Adjusting each program number settings (“PROGRAM SETUP”)** on page 27). |
| “COLOR SYS” | Select the color system. Normally, set this to “AUTO”. |

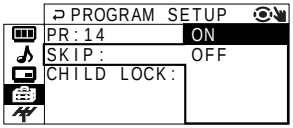
## Adjusting each program number settings (“PROGRAM SETUP”)

**1** Select “PROGRAM SETUP” from the “SETUP” menu.

**2** Select “PR” and press ENTER. Press ↑ or ↓ to select the desired program number you want to adjust, then press ENTER.




**3** Press ↑ or ↓ to select the desired item (e.g., “SKIP”), then press ENTER.




| Select | To |
|---|---|
| “PR” | select the desired program number. |
| “SKIP” | skip unwanted or unused program number.<br>Press ↑ or ↓ to select “ON”, then press ENTER.<br>To cancel, select “OFF”, then press ENTER. |
| “CHILD LOCK” | prevent children from watching this selected program number.<br>Press ↑ or ↓ to select “ON”, then press ENTER.<br>The lock symbol ( 🔒 ) appears on the screen.<br>To cancel, select “OFF”, then press ENTER<br>If you preset a locked program number, that program number will be unlocked automatically. |

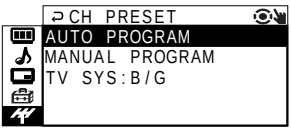
**4** To continue adjusting other program numbers, press ↑ or ↓ to select “PR”, then repeat step 2 and 3.

# ■ Changing the Channel Preset ("CH PRESET") setting

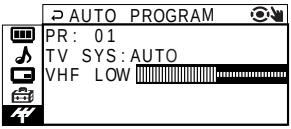
The "CH PRESET" menu allows you to preset channels automatically, manually preset channels and select the TV system.

**1** Press MENU.

**2** Press ↑ or ↓ to select the "CH PRESET" icon (), then press ENTER.




**3** Press ↑ or ↓ to select the desired item (e.g., "AUTO PROGRAM"), then press ENTER.

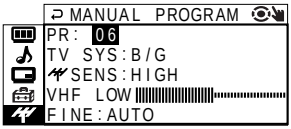



| Select | To |
|---|---|
| "AUTO PROGRAM" | preset channels automatically. |
| "MANUAL PROGRAM" | manually preset desired channels and channels that cannot be preset automatically (see **Presetting channels manually** on page 29). |
| "TV SYS" | select the TV system.<br><br>Press ↑ or ↓ to select either "B/G", "I", "D/K" or "M", then press ENTER. |

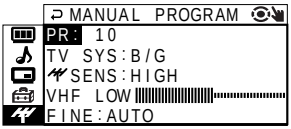
## Presetting channels manually

**1** After selecting "MANUAL PROGRAM", select the program number to which you want to preset a channel.

(1) Make sure "PR" is selected, then press ENTER.




(2) Press ↑ or ↓ until the program number you want to preset (e.g., program number "10") appears on the menu, then press ENTER.

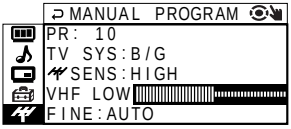



**Tip**

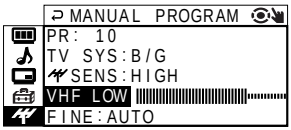
- You can also select the program number with the PROGR +/– or number buttons.

**2** Select the desired channel.

(1) Press ↑ or ↓ to select either "VHF LOW", "VHF HIGH", or "UHF", then press ENTER.

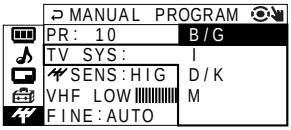



(2) Press ↑ or ↓ until the desired channel's broadcast appears on the TV screen, then press ENTER.

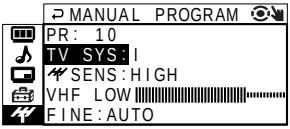



**3** If the sound of the desired channel is abnormal, select the appropriate TV system.

(1) Press ↑ or ↓ to select "TV SYS", then press ENTER.




(2) Press ↑ or ↓ until the sound becomes normal, then press ENTER.

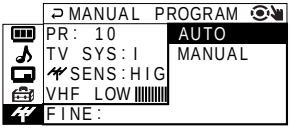



continue

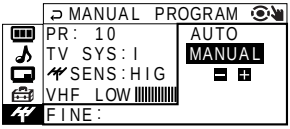
*continued*

**4** If you are not satisfied with the picture and sound quality, you may be able to improve them by using the "FINE" tuning feature.

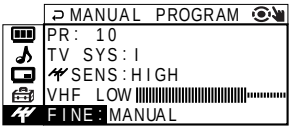
(1) Press ↑ or ↓ to select "FINE", then press ENTER.




(2) Press ↑ or ↓ to select "MANUAL", then press ENTER.

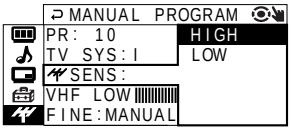



(3) Press ↑, ↓, ← or → until the picture and sound quality are optimal, then press ENTER.
The + or – icon on the menu flashes while tuning.

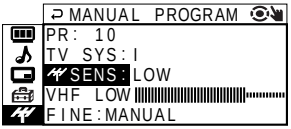



**5** If the TV signal is too strong and the picture is distorted, you can adjust the TV reception sensitivity.

(1) Press ↑ or ↓ to select "SENS", then press ENTER.




(2) Press ↑ or ↓ to select "LOW", then press ENTER.

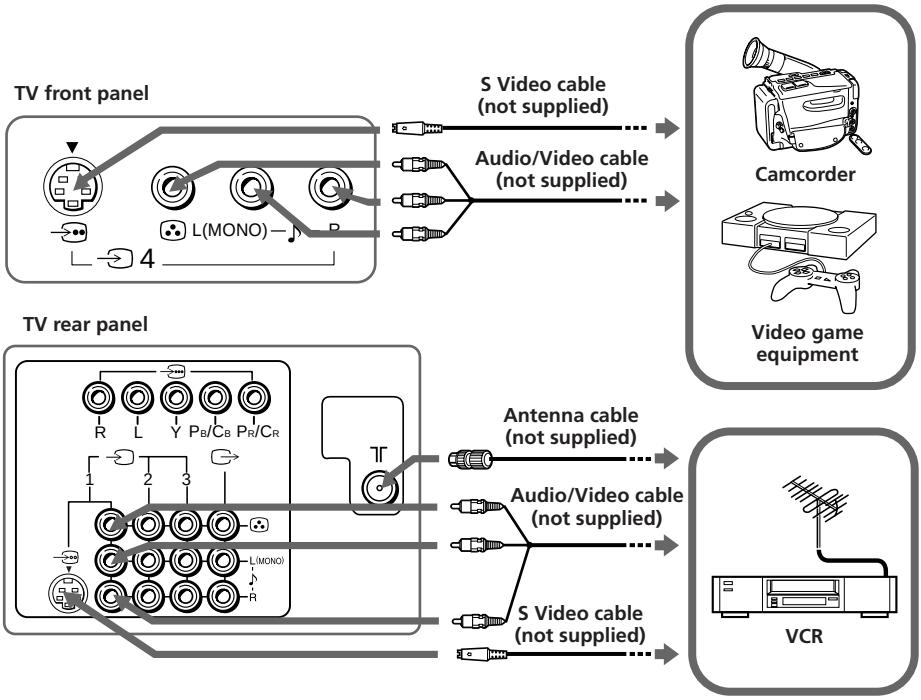



**Notes**

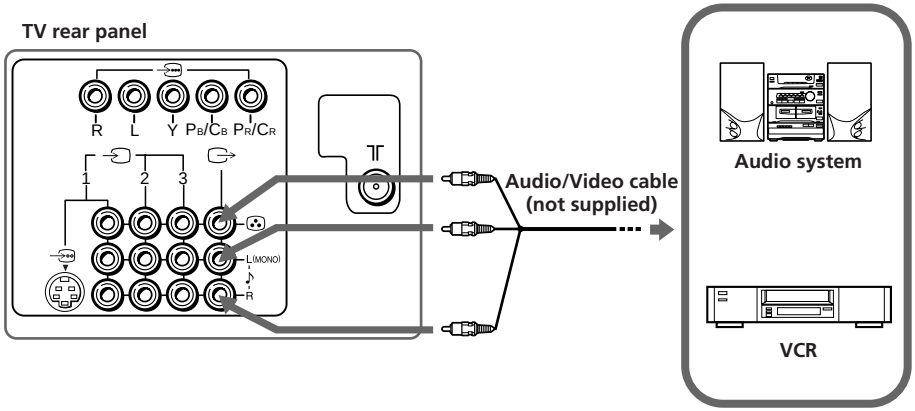
- If you connect a VCR to ⅂ (antenna input), preset the signal output from the VCR to the program number 0 on the TV.
- "SENS" is available for KV-DR34M69 only.

# ■ Connecting optional components

## Connecting to the video input terminal ( )




## Connecting to the monitor output terminal ( )




continue

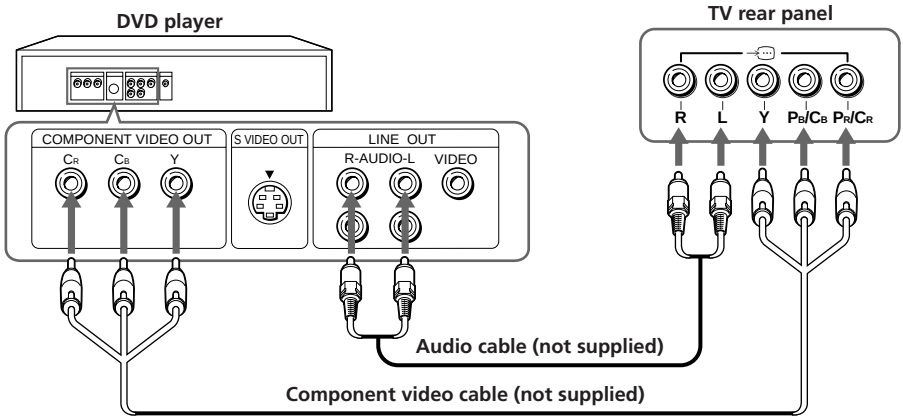
*continued*

## Connecting a DVD player to the component video input terminal ( )

1 Using an audio cable, connect R and L under (component video input) on your TV to the LINE OUT, AUDIO R and L output connectors on your DVD player.

2 Using a component video cable, connect Y, $P_B/C_B$, and $P_R/C_R$ under (component video input) on your TV to the COMPONENT VIDEO OUT Y, $C_B$, and $C_R$ output connectors on your DVD player.

3 Press DVD on the remote to watch the (component video input) and "DVD" will appear on your screen.




**Notes**

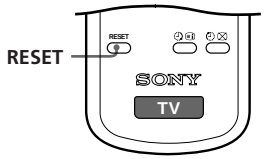
- Some DVD player terminals may be labeled differently:

| Connect | To (on the DVD player) |
|---|---|
| Y (green) | Y |
| $P_B/C_B$ (blue) | $C_B$, $P_B$, $C_b$ or B-Y |
| $P_R/C_R$ (red) | $C_R$, $P_R$, $C_r$ or R-Y |

- When both (S video) and (video) for 1 or 4 are connected at the same time, (S video) is automatically selected. To view (video), disconnect the S video cable.
- If you select "DVD" on your TV screen, the signal from the (monitor output) will not be output properly. This does not indicate a malfunction.
- When receiving a progressive signal through the (component video input), "PIP" is not available, and "DRC-MF" and "GAME MODE" are not selectable.

# ■ Troubleshooting

If you have any problem while viewing your TV, you can either use the Reset function or check the Troubleshooting guide below. If the problem persists, contact your Sony dealer.

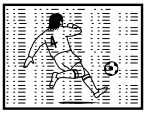



### Reset function

Press the RESET button on your remote control. Your TV will go blank for about half a second then the picture will reappear with "RESET" displayed on your TV screen for about 10 seconds.

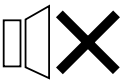
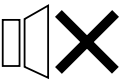
Pressing RESET will set your TV to the factory setting, but certain problems may be solved.

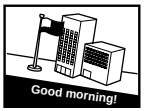
## Troubleshooting guide

| Symptom | Possible cause | Solutions | Page |
|---|---|---|---|
| **Snowy picture**  **Noisy sound** | • The connection is loose or the cable is damaged. | • Check the antenna cable and connection on the TV, VCR and at the wall. | 31 |
| | • The antenna setup is inappropriate. | • Check the antenna setup. Contact a Sony dealer for advice. | – |
| | • Channel presetting is inappropriate or incomplete. | • Display the "CH PRESET" menu and select "MANUAL PROGRAM" to preset the channel again. | 29 |
| | • Signal transmission is low. | • Try using a booster. | – |
| **Distorted picture** **Noisy sound** | • Broadcast signals are too strong. | • Display the "CH PRESET" menu and select "MANUAL PROGRAM". Then, select "⚡ SENS: LOW" (KV-DR34M69 only).<br>• Turn off or disconnect the booster if it is in use. | 30<br>– |
| **Good picture** **Noisy sound** | • The TV system setting is inappropriate.<br>• PIP sound is selected when PIP is displayed. | • Display the "CH PRESET" menu and select the appropriate TV system ("TV SYS").<br>• Press SOUND or ◔ (KV-DR34M69 only). | 29<br>13 |

continue

*continued*

| Symptom | Possible cause | Solutions | Page |
|---|---|---|---|
| **No picture**<br> <br>**No sound**<br>  | • The power cord, antenna or VCR is not connected. | • Check the power cord, antenna and VCR connections. | 31 |
| | • The TV is not turned on. | • Press I/⏻ (power).<br>• Press ⏻ (main power) on the TV to turn off the TV for about five seconds, then turn it on again. | 9<br>8 |
| **Good picture**<br> <br>**No sound**<br>  | • The volume level is too low. | • Press + to increase the volume level. | 9 |
| | • The sound is muted.<br>• PIP sound is selected when PIP is displayed. | • Press 🔇 to cancel the muting.<br>• Press SOUND or ◔ (KV-DR34M69 only). | 9<br>13 |
| **Dotted lines or stripes**<br> | • There is local interference from cars, neon signs, hair dryers, power generators, etc. | • Do not use a hair dryer or other equipment near the TV.<br>• Check the antenna setup. Contact a Sony dealer for advice. | –<br>– |
| **Double images or "ghosts"**<br> | • Broadcast signals are reflected by nearby mountains or buildings. | • Use a highly directional antenna.<br>• Use the fine tuning ("FINE") function. | –<br>30 |
| | • The antenna setup is inappropriate. | • Check the antenna setup. Contact a Sony dealer for advice. | – |
| | • Use of a booster is inappropriate. | • Turn off or disconnect the booster if it is in use. | – |
| **No color**<br> | • The color level setting is too low. | • Display the "PICTURE" menu and select "ADJUST" of "PICTURE MODE", then adjust the "COLOR" level. | 22 |
| | • The color system setting is inappropriate. | • Display the "SETUP" menu and check the color system ("COLOR SYS") setting (usually set this to "AUTO"). | 26 |
| | • The antenna setup is inappropriate. | • Check the antenna setup. Contact a Sony dealer for advice. | – |

| Symptom | Possible cause | Solutions | Page |
|---|---|---|---|
| **Picture slant**<br>  | • The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV. | • Keep external speakers or other electrical equipment away from the TV.<br>• Display the "SETUP" menu and adjust "PIC ROTATION" so that the picture position is optimal. | –<br>26 |
| **Abnormal color patches**<br> | • The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV. | • Keep external speakers or other equipment away from the TV. Do not move the TV while the TV is turned on. Press ⏻ (main power) on the TV to turn off the TV for about 15 minutes, then turn it on again to demagnetize the TV. | – |
| **TV cannot receive stereo broadcast sound.** | • The stereo reception setting is inappropriate. | • Press A/B until "AUTO" appears on the screen. | 16 |
| **or** | • The connection is loose or the cable is damaged. | • Check the antenna cable and connection on the TV, VCR and on the wall. | 31 |
| **Stereo broadcast sound switches on and off or is distorted.** | • The antenna setup is inappropriate. | • Check the antenna setup. Contact a Sony dealer for advice. | – |
| **"100" appears at the top of the screen and there is no Teletext display (KV-DR34M69 only).** | • The channel carries no Teletext broadcast. | — | 17 |
| **Teletext display is incomplete (snowy picture or double images) (KV-DR34M69 only).** | • Connection is loose or the cable is damaged. | • Check the antenna cable and connection on the TV, VCR, and at the wall. | 31 |
| | • The antenna direction is inappropriate. | • Adjust the antenna direction. Contact a Sony dealer for advice. | – |
| | • Signal transmission is too low. | • Try using a booster.<br>• Use the fine tuning ("FINE") function. | –<br>30 |

**continue**

*continued*

| Symptom | Possible cause | Solutions | Page |
|---|---|---|---|
| **The ⏻ (standby) indicator on your TV flashes red several times after every three seconds.** | • Your TV's self-diagnosis function indicates the possible problems. | • Count the number of times the ⏻ (standby) indicator flashes. Press ⏻ (main power) to turn off your TV. Contact your nearest Sony service center. | – |
| **Cannot play shooting games.** | • Some shooting games which involve pointing a light beam at the TV screen with an electronic gun or rifle cannot be used with your TV. For details, see the instruction manual supplied with the video game software. | — | – |
| **TV cabinet creaks.** | • Changes in room temperature sometimes make the TV cabinet expand or contract, causing a noise. This does not indicate a malfunction. | — | – |
| **A small "boom" sound is heard when the TV is turned on.** | • The TV's demagnetizing function is working. This does not indicate a malfunction. | — | – |

# ■ Specifications

| | KV-DR34M69 | KV-DR29M63 | Note |
|---|---|---|---|
| **Power requirements** | 220-240 V AC, 50/60 Hz | | |
| **Power consumption (W)** | Indicated on the rear of the TV | | |
| **Television system** | B/G, I, D/K, M | | |
| **Color system** | PAL, PAL 60, SECAM, NTSC3.58, NTSC4.43 | | |
| **Stereo/Bilingual system** | NICAM Stereo/Bilingual B/G, I;<br>A2 Stereo/Bilingual B/G | | |
| **Teletext language** | English, Arabic, French, Persian | | KV-DR34M69 only |
| **Channel coverage** | | | |
| **B/G** | VHF : E2 to E12<br>UHF : E21 to E69<br>CATV : S01 to S03, S1 to S41 | | |
| **I** | UHF : B21 to B68<br>CATV : S01 to S03, S1 to S41 | | |
| **D/K** | VHF : C1 to C12, R1 to R12<br>UHF : C13 to C57, R21 to R60<br>CATV : S01 to S03, S1 to S41, Z1 to Z39 | | |
| **M** | VHF : A2 to A13<br>UHF : A14 to A79<br>CATV : A-8 to A-2, A to W+4, W+6 to W+84 | | |
| **(Antenna)** | 75-ohm external terminal | | |
| **Audio output (Speaker)** | 6W + 6W | | |
| **3D WOOFER** | 15W | | |
| **Number of terminal** | | | |
| **(Video)** | Input: 4 Output: 1 | Phono jacks; 1 Vp-p, 75 ohms | |
| **(Audio)** | Input: 4 Output: 1 | Phono jacks; 500 mVrms | |
| **(S Video)** | Input: 2 | Y: 1 Vp-p, 75 ohms, unbalanced, sync negative<br>C: 0.286 Vp-p, 75 ohms | |
| **(Component Video)** | Input: 1 | Phono jacks;<br>Y: 1 Vp-p, 75 ohms, sync negative<br>$P_B/C_B$: 0.7 Vp-p, 75 ohms<br>$P_R/C_R$ 0.7 Vp-p, 75 ohms<br>Audio: 500 mVrms | |
| **(Headphone)** | Output: 1 | Stereo minijack | |
| **Picture tube** | 34 in. | 29 in. | |
| **Tube size (cm)** | 86 | 72 | Measured diagonally |
| **Screen size (cm)** | 80 | 68 | Measured diagonally |
| **Dimensions (w/h/d, mm)** | 894 × 690 × 569 | 786 × 596 × 514 | |
| **Mass (kg)** | 85 | 57 | |

Design and specifications are subject to change without notice.

Sony Thai Co., Ltd.
2126 Kromadit Building, New Petchburi Road,
Bangkapi, Huaykwang, Bangkok 10320

http://www.sony.net/
Sony Corporation

SONY

4-088-512-**11** (1)

# *Trinitron Color TV*

## Operating Instructions — GB

- Before operating the unit, please read this manual thoroughly and retain it for future reference.

## 使用說明書 — CT

- 使用本電視機之前請先詳細閱讀此手冊，並妥善保存以備日後用作參考。

## Panduan Pengendalian — MY

- Sebelum mengendalikan unit, sila baca buku panduan ini dengan teliti dan simpan untuk rujukan masa depan.

FD Trinitron WEGA

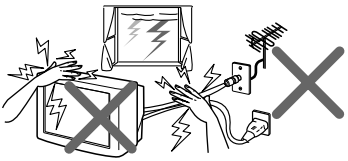
*KV-DR34*
*KV-DR29*

© 2002 Sony Corporation

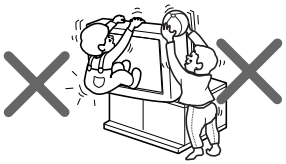
M69

# WARNING

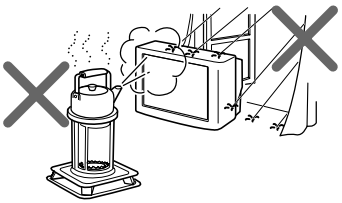
- Dangerously high voltages are present inside the TV.
- TV operating voltage: 110 – 240 V AC.
- Do not plug in the power cord until you have completed making all other connections; otherwise a minimum leakage current might flow through the antenna and other terminals to ground.
- To avoid battery leakage and damage to the remote, remove the batteries from the remote if you are not going to use it for several days. If any liquid leaks from the batteries and touches your skin, immediately wash it away with water.



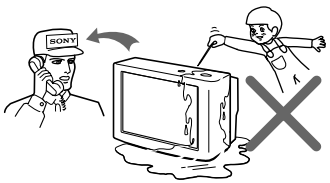
For your own safety, do not touch any part of the TV, the power cord and the antenna cable during lightning storms.



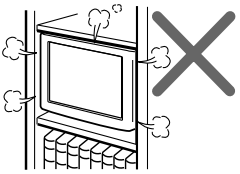
For children's safety, do not leave children alone with the TV. Do not allow children to climb onto it.



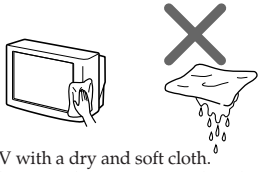
To prevent fire or shock hazard, do not expose the TV to rain or moisture.



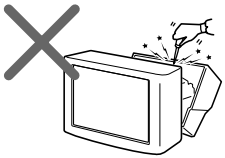

Do not operate the TV if any liquid or solid object falls into it. Have it checked immediately by qualified personnel only.



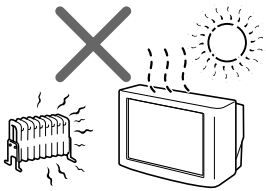
Do not block the ventilation openings of the TV. Do not install the TV in a confined space, such as a bookcase or built-in cabinet.



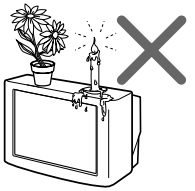
Clean the TV with a dry and soft cloth. Do not use benzine, thinner, or any other chemicals to clean the TV. Do not attach anything (e.g., adhesive tape, cellophane tape, glue) on the painted cabinet of the TV. Do not scratch the picture tube.



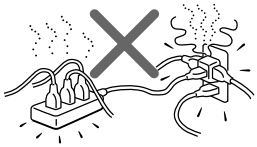
Do not open the cabinet and the rear cover of the TV as high voltages and other hazards are present inside the TV. Refer servicing and disposal of the TV to qualified personnel.



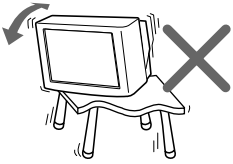
Your TV is recommended for home use only. Do not use the TV in any vehicle or where it may be subject to excessive dust, heat, moisture or vibrations.



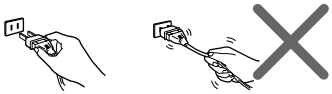
Do not place any objects on the TV.



Do not plug in too many appliances to the same power socket. Do not damage the power cord.



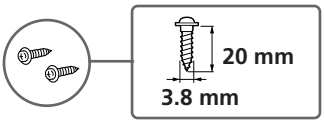
Install the TV on a stable TV stand and floor which can support the TV set weight. Ensure that the TV stand surface is flat and its area is larger than the bottom area of the TV.



Pull the power cord out by the plug. Do not pull the power cord itself. Even if your TV is turned off, it is still connected to the AC power source (mains) as long as the power cord is plugged in. Unplug the TV before moving it or if you are not going to use it for several days.

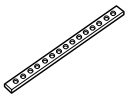
# ■ Securing the TV

To prevent the TV from falling, use the supplied screws, clamps and band to secure the TV.

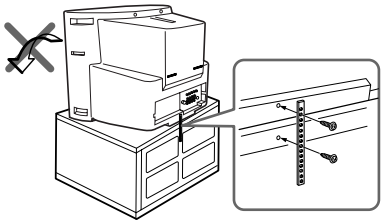



screws

clamps

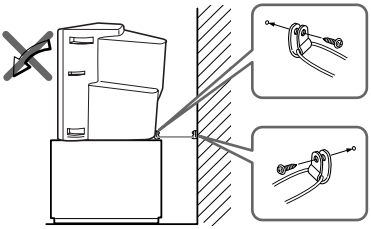


band



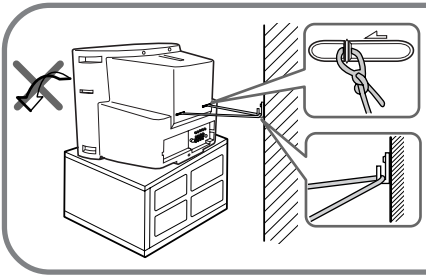
Screw the band to the TV stand and to the provided hole at the rear of your TV.

**or**



(1) Put a cord or chain through the clamps.
(2) Screw one clamp to a wall or pillar and the other clamp to the provided hole at the rear of your TV.

**or**



(1) Attach each end of a cord or chain to the provided holders at the rear of your TV.
(2) Securely fix the attached cord or chain to a wall or pillar using an attachment which can support the TV set weight.

**Note**

- Use only the supplied screws. Use of other screws may damage the TV.

# Table of Contents


## Installation

Getting Started ..... **6**
Setting up your TV ("INITIAL SETUP") ..... **7**

## Overview of Controls

TV front and rear panels ..... **8**
Remote control ..... **9**

## Advanced Operations

Selecting the picture and sound modes ..... **11**
Viewing higher quality pictures with DRC-MF ..... **12**
Viewing the picture in wide mode .. **12**
Watching Picture-in-Picture (PIP) ... **13**
Selecting a TV program using PIP .. **14**
Listening with surround sound ..... **14**
Setting the timers ..... **15**
Enjoying stereo or bilingual programs ..... **16**
Viewing Teletext ..... **17**

## Menu Adjustment

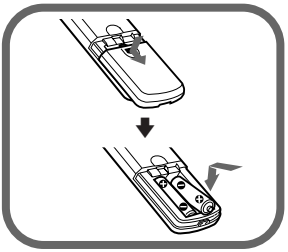
Introducing the menu system ..... **18**
Changing the "PICTURE" setting ... **21**
Changing the "SOUND" setting ..... **23**
Changing the Picture-in-Picture ("PIP") setting ..... **25**
Changing the "SETUP" setting ..... **26**
Changing the Channel Preset ("CH PRESET") setting ..... **28**

## Additional Information

Connecting optional components ... **31**
Troubleshooting ..... **33**
Specifications ..... **Back cover**


GB

# ■ Getting Started

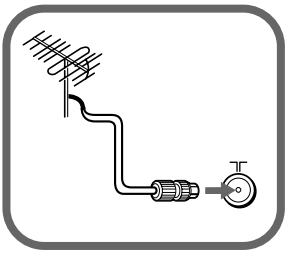


## Step 1

Insert the batteries (supplied) into the remote.

**Note**

- Do not use old or different types of batteries together.

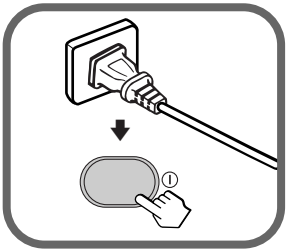


## Step 2

Connect the antenna cable (not supplied) to ⊤ (antenna input) at the rear of the TV.

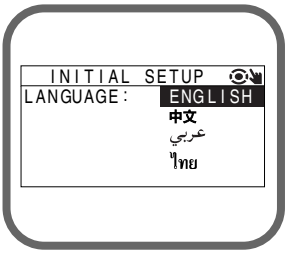
**Tip**

- You can also connect your TV to other optional components (see page 31).



## Step 3

Plug in the power cord, then press ⏻ on the TV to turn it on.

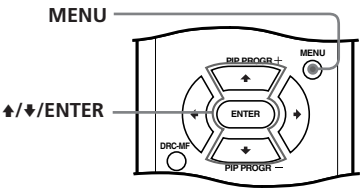



## Step 4

Set up the TV by following the instructions of the "INITIAL SETUP"menu (see page 7).

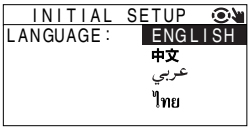
# ■ Setting up your TV ("INITIAL SETUP")

When you turn on your TV for the first time, the "INITIAL SETUP" menu will appear. This menu allows you to change the menu language, adjust the picture position and preset the TV channels automatically.




**1** Press ↑ or ↓ to select the desired menu language (e.g.,"ENGLISH"), then press ENTER.

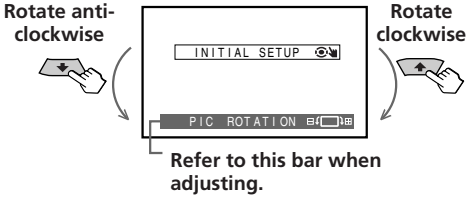
The selected menu language appears.




**2** If the "PIC ROTATION" bar is slanted, press ↑ or ↓ to adjust it, then press ENTER.

If no adjustment is necessary, then press ENTER.

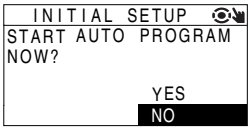
The ⊞ or ⊟ icon on the screen flashes while adjusting.

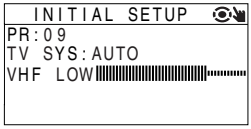



**3** Press ↑ or ↓ to select "YES", then press ENTER to preset the channels automatically (see page 28).

The screen will indicate automatic presetting is in progress.

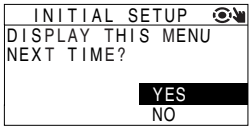
To skip automatic channel presetting, select "NO", then press ENTER.




**4** Press ↑ or ↓ to select "NO", then press ENTER. The "INITIAL SETUP" menu will not appear again the next time you turn on the TV by pressing ①.

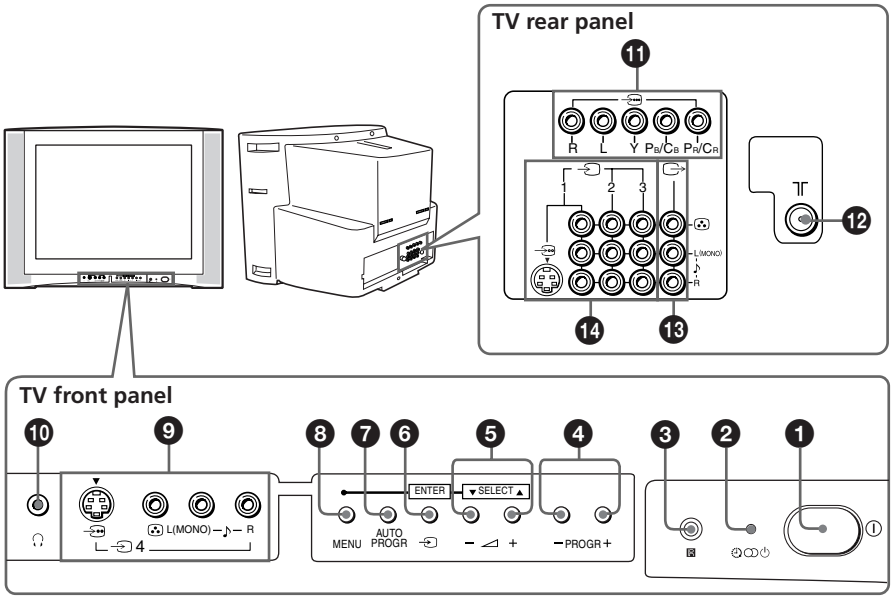
To allow this menu to appear again, select "YES", then press ENTER.




**Tip**

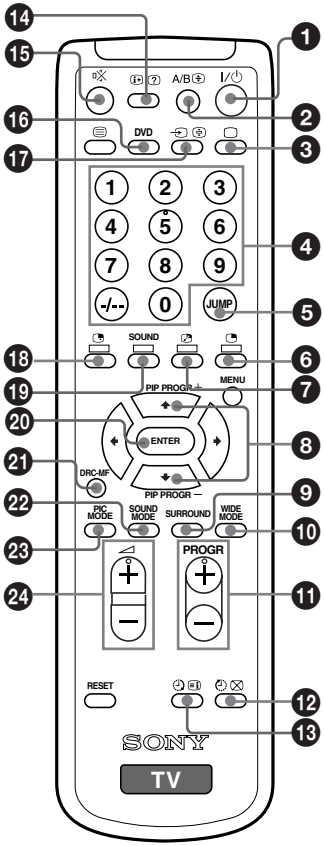
- You can immediately go to the end of the "INITIAL SETUP" menu by pressing MENU.
- You can also set up your TV using the menu system (see page 18).

# ■ TV front and rear panels




| Button/Terminal | Function | Page |
|---|---|---|
| ❶ ⏻ | Turn off or turn on the TV. | – |
| ❷ ⏻ | Standby indicator. | – |
| ❷ 🕘 | Wake Up indicator. | 15 |
| ❷ ◯◯ | Stereo/bilingual indicator. | 16 |
| ❸ | Remote control sensor. | – |
| ❹ PROGR +/– | Select program number. | – |
| ❺ +/– | Adjust volume. | – |
| ❻ | Select TV or video input. | – |
| ❼ AUTO PROGR | Preset channels automatically. | – |
| Menu operations | | |
| ❺ SELECT ▼/▲ | Select and adjust items | 20 |
| ❻ ENTER | Confirm selected items | 20 |
| ❽ MENU | Display or cancel the menu | 20 |
| ❾ 4 | Video input terminal 4. | 31 |
| ❿ | Headphone jack. | – |
| ⓫ | Component video input terminal. | 32 |
| ⓬ | Antenna input terminal. | 31 |
| ⓭ | Monitor output terminal. | 31 |
| ⓮ 1, 2, 3 | Video input terminal 1, 2, 3. | 31 |

# ■ Remote control

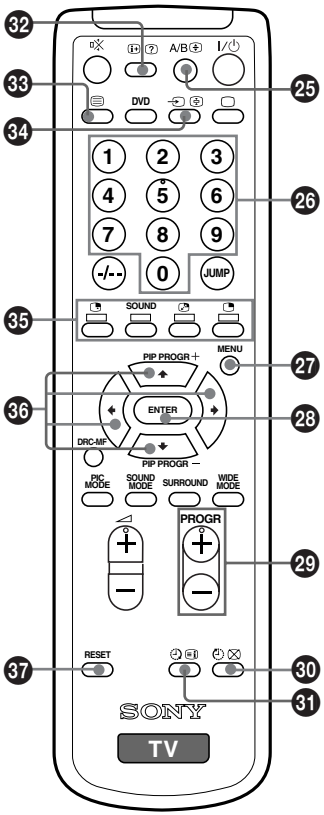



| Button | Function | Page |
|---|---|---|
| ❶ I/⏻ | Turn off temporarily or turn on the TV. | – |
| ❸ ▭ | Display the TV input. | – |
| ❹ 0 – 9, -/-- | Input numbers. | – |
| ❺ JUMP | Jump to previous program number. | – |
| ❾ SURROUND | Select surround mode. | 14 |
| ❿ WIDE MODE | Select wide-mode (16:9). | 12 |
| ⓫ PROGR +/– | Select program number. | – |
| ⓮ i+ | Display on-screen information. | – |
| ⓯ 🔇 | Mute the sound. | – |
| ⓰ DVD | Select component video input. | 32 |
| ⓱ ▭ | Select TV or video input. | 31 |
| ㉑ DRC-MF | Select DRC-MF mode. | 12 |
| ㉒ SOUND MODE | Select sound mode. | 11 |
| ㉓ PIC MODE | Select picture mode. | 11 |
| ㉔ +/– | Adjust volume. | – |
| **Timer operations** | | |
| ⓬ | Set TV to turn off automatically. | 15 |
| ⓭ | Set TV to turn on automatically. | 15 |
| **PIP operations (yellow label)** | | |
| ❻ | Display a sub screen. | 13 |
| ❼ | Swap main and sub screens. | 13 |
| ❽ PIP PROGR +/ PIP PROGR – | Display and change programs in the sub screen. | 13,14 |
| ⓲ | Select a video input in the sub screen. | 13 |
| ⓳ SOUND | Swap sound between main and sub screen. | 13 |
| ⓴ ENTER | Change sub screen to main screen. | 14 |
| **Stereo/bilingual operations** | | |
| ❷ A/B | Select stereo/bilingual mode. | 16 |



continue

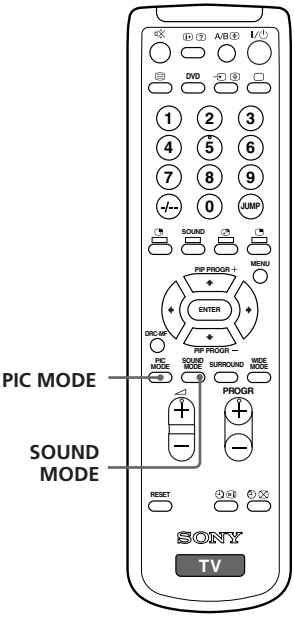
*continued*




| Button | Function | Page |
|---|---|---|
| **Menu operations** | | |
| 27 MENU | Display or cancel the menu. | 20 |
| 28 ENTER | Confirm selected items. | 20 |
| 36 ↑, ↓, ←, → | Select and adjust items. | 20 |
| **Teletext operations (green label)** | | |
| 25 | Enlarge the Teletext display. | 17 |
| 26 0 – 9 | Input Teletext page number | 17 |
| 29 PROGR +/– | Display the next or previous page. | 17 |
| 30 | Show TV screen while waiting for Teletext page. | 17 |
| 31 | Display Teletext service contents. | 17 |
| 32 | Reveal concealed information. | 17 |
| 33 | Display Teletext broadcast. | 17 |
| 34 | Stop Teletext display from scrolling. | 17 |
| 35 (red, green, yellow, blue) | Access a FASTEXT menu. | 17 |
| 37 RESET | Set TV to factory setting. | 33 |

# Selecting the picture and sound modes

You can select picture and sound modes and adjust the setting to your preference in the “PERSONAL” option.




## Selecting the picture mode

Press PIC MODE to select the desired picture mode.

| Select | To |
|---|---|
| “DYNAMIC” | view high contrast pictures. |
| “STANDARD” | view normal pictures. |
| “HI-FINE” | view higher density pictures with mild contrast. |
| “PERSONAL” | receive the last adjusted picture setting from the “ADJUST” option in the “PICTURE” menu (see page 22). |

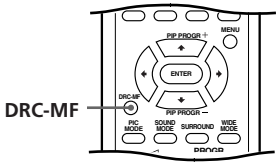
## Selecting the sound mode

Press SOUND MODE to select the desired sound mode.

| Select | To |
|---|---|
| “♪ DYNAMIC” | listen to dynamic and clear sound that emphasizes both the low and high tones. |
| “♪ DRAMA” | listen to sound that emphasizes voice and high tones. |
| “♪ SOFT” | listen to soft sound. |
| “♪ PERSONAL” | receive the last adjusted sound setting from the “ADJUST” option in the “SOUND” menu (see page 24). |

# ■ Viewing higher quality pictures with DRC-MF

The Digital Reality Creation-Multi Function (DRC-MF) feature allows you to enjoy higher quality pictures on your TV. You can use the DRC-MF button to select "DRC1250" or "DRC PROGRESSIVE".




| Select | To |
|---|---|
| "DRC1250" | view super real (higher density) pictures. |
| "DRC PROGRESSIVE" | reduce jitter of any small areas or scanning lines (e.g., letters or the edge of objects) on the screen. |

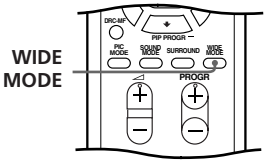
**Note**

- The DRC-MF mode is not selectable when the "GAME MODE" or Picture-in-Picture ("PIP") mode is turned on.

The DRC-MF logo ( DRC-MF Digital Reality Creation ) and "DRC-MF" are trademarks of Sony Corporation.

# ■ Viewing the picture in wide mode

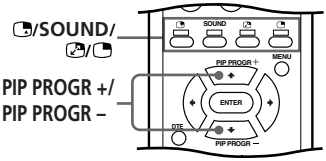
When receiving a wide-mode (16:9) signal, the picture will appear "squeezed" (compressed) on your screen. Use the WIDE MODE button to view the picture with the optimal effect.




| Select | To |
|---|---|
| "ON" | view the picture in wide-mode (16:9). |
| "OFF" | cancel wide-mode (16:9). |

# ■ Watching Picture-in-Picture (PIP)

With the PIP feature, you can display two different TV programs or video input at the same time by using the button.



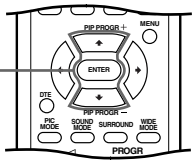

| To | Press |
|---|---|
| Display a sub screen | . To cancel the sub screen, press the button again. |
| Change a program number in the sub screen | PIP PROGR + or PIP PROGR –. |
| Select a video input in the sub screen | . |
| Swap pictures between the main and sub screens | . |
| Swap sound between the main and sub screens<br><br>A "♪" symbol will appear next to the program number or video input display to indicate which screen you are hearing. | SOUND. |

**Notes**

- The DRC-MF mode is not selectable when PIP is turned on.
- The picture and sound from the ⇨ (monitor output) terminals will always be from the main screen, even when you select the sub screen sound by pressing SOUND (see page 31).

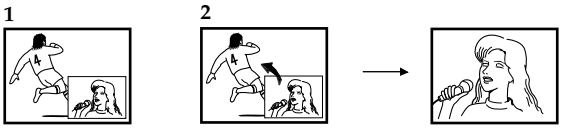
# ■ Selecting a TV program using PIP

You can select your desired TV program directly from the PIP sub screen by using PIP PROGR +/– buttons.



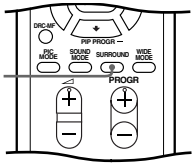

**1** Press PIP PROGR +/– until the desired program appears in the sub screen.

**2** Press ENTER to change the sub screen program to the main screen.




# ■ Listening with surround sound

You can use the SURROUND button to listen to the sound effects of a concert hall or movie theater.



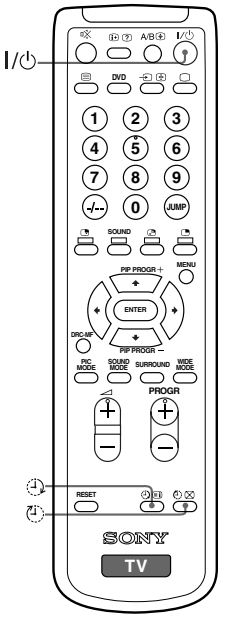

| Select | To |
|---|---|
| "TruSurround" | listen to the surround sound that spreads out to the rear of a room. |
| "SIMULATED" | listen to monaural sound with a stereo-like effect. |
| "OFF" | cancel surround sound. |

The surround of your TV is categorized as TruSurround.

**TruSurround**™ is a trademark of SRS Labs, Inc. SRS and the SRS symbol are registered trademarks of SRS Labs, Inc. in the United States and selected foreign countries. SRS and TruSurround are incorporated under license from SRS Labs, Inc. and are protected under United States Patent Nos. 4,748,669 and 4,841,572 with numerous additional issued and pending foreign patents.

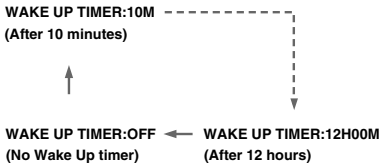
# ■ Setting the timers

You can set your TV to turn on and off automatically by using the WAKE UP and SLEEP timers respectively.




## Setting the Wake Up timer

**1** Press ⏲ until the desired period of time appears on the screen.




The Wake Up timer starts immediately after you have set it.

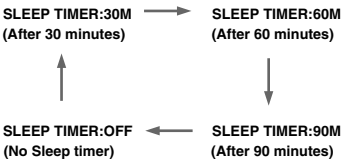
**2** Select the program number or video input you want to wake up to.

**3** Press I/⏻, or set the Sleep timer if you want the TV to turn off automatically.

The ⏲ indicator on the TV lights up orange when the TV goes into standby mode.

## Setting the Sleep timer

Press ⏲ until the desired period of time appears on the screen.



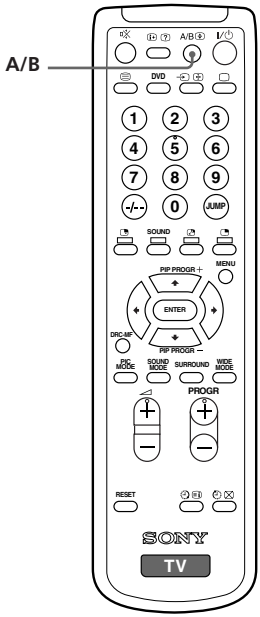

The Sleep timer starts immediately after you have set it.

**Notes**

- You can also cancel the Wake Up and Sleep timers by turning off the TV's main power.
- If no buttons are pressed for more than two hours after the TV is turned on using the Wake Up timer, the TV automatically goes into standby mode.

# ■ Enjoying stereo or bilingual programs

You can enjoy stereo sound or bilingual programs of NICAM and A2 stereo systems by using the A/B button.




## When receiving a NICAM program

| Broadcasting | On-screen display (Selected sound) |
|---|---|
| NICAM stereo | NICAM (Stereo sound) → MONO (Regular sound) |
| NICAM bilingual | NICAM MAIN (Main sound) → NICAM SUB (Sub sound) → MONO (Regular sound) |
| NICAM monaural | NICAM MAIN (Main sound) → MONO (Regular sound) |

## When receiving an A2 program

| Broadcasting | On-screen display (Selected sound) |
|---|---|
| A2 stereo | STEREO (Stereo sound) → MONO (Regular sound) |
| A2 bilingual | MAIN (Main sound) → SUB (Sub sound) |

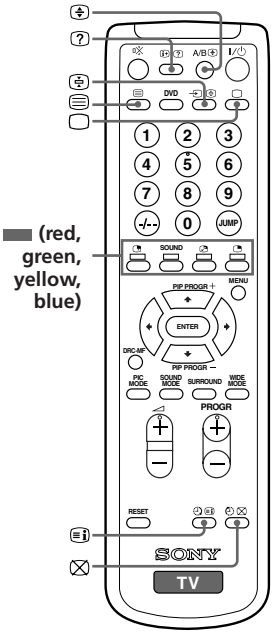
**Notes**

- If the stereo sound is noisy when receiving a stereo program, select "MONO". The sound becomes monaural, but the noise is reduced.
- If the sound is distorted when receiving a monaural program through ⅂Γ (antenna input), press A/B repeatedly until "MONO" appears on the screen. To cancel the monaural sound setting, press A/B again until "AUTO" appears on the screen.
- Your TV can only receive monaural sound when you select the PIP sub screen sound by pressing SOUND (see page 13).

# Viewing Teletext

Some TV stations broadcast an information service called Teletext which allows you to receive various information, such as stock market reports and news.

You can use the buttons on the remote to view Teletext.



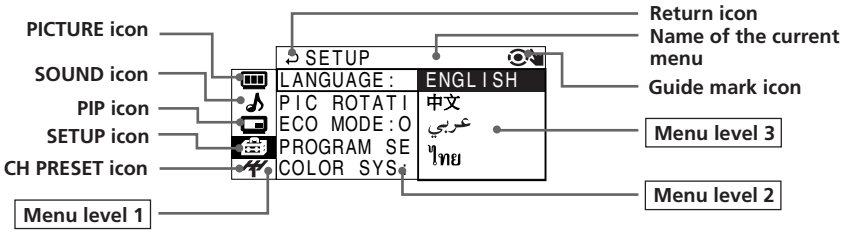

| To | Do this |
|---|---|
| display a Teletext page on the TV picture | Press ☰. Each time you press ☰, the screen changes as follows: Teletext → Teletext and TV → TV. If there is no Teletext broadcast, "100" is displayed at the top left corner of the screen. |
| check the contents of a Teletext service | Press ⓘ. An overview of the Teletext contents, including page numbers, appears on the screen. |
| select a Teletext page | Press the number buttons to enter the three-digit page number of the desired Teletext page. If you make a mistake, reenter the correct page number. To access the next or previous page, press PROGR +/–. |
| hold (pause) a Teletext display | Press ⊕ to display the symbol "⊕" at the top left corner of the screen. To resume normal Teletext viewing, press ⊕ or ☰. |
| reveal concealed information (e.g., an answer to a quiz) | Press ?. To conceal the information, press the button again. |
| enlarge the Teletext display | Press ⊕. Each time you press ⊕, the Teletext display changes as follows: Enlarge upper half → Enlarge lower half → Normal size. |
| stand by for a Teletext page while watching a TV program | 1 Enter the Teletext page number that you want to refer to, then press ⊠.<br>2 When the page number is displayed, press ☰ to show the text. |
| select a FASTEXT menu or the colored boxes | Press ■ (red, green, yellow and blue) that corresponds to the desired menu or page number. |
| turn off Teletext | Press ▭. |

**Note**

- The FASTEXT feature can be used only when the FASTEXT broadcast is available.

# ■ Introducing the menu system

The MENU button lets you open a menu and change the settings of your TV. The following is an overview of the menu system.




| Level 1 | Level 2 | Level 3/Function | Page |
|---|---|---|---|
| "PICTURE" | "DRC-MF" | Select the "DRC-MF" mode:<br>"DRC1250" → "PROGRESSIVE" | 21 |
| | "PICTURE MODE" | Select the picture mode:<br>"DYNAMIC" → "STANDARD" → "HI-FINE" → "PERSONAL" → "ADJUST" | |
| | "ADJUST" | Adjust the "PERSONAL" option:<br>"PICTURE" → "COLOR" → "BRIGHT" → "HUE" → "SHARP" | |
| | "3D-NR" | Reduce picture noise:<br>"ON" → "OFF" | |
| | "WIDE MODE" | Change the picture size. | |
| | "GAME MODE" | Adjust the picture settings for video games. | |
| "SOUND" | "SOUND MODE" | Select the sound mode:<br>"DYNAMIC" → "DRAMA" → "SOFT" → "PERSONAL" → "ADJUST" | 23 |
| | "ADJUST" | Adjust the "PERSONAL" option:<br>"BASS" → "TREBLE" → "BALANCE" → "BBE"* | |
| | "SURROUND" | Select the "SURROUND" mode:<br>"TruSurround" → "SIMULATED" →"OFF" | |
| | "INTELLIGENT VOL" | Adjust volume automatically. | |
| "PIP" | "POSITION" | Change the position of the sub screen. | 25 |
| | "PIP" | Display a sub screen within the main picture. | |
| | "SWAP" | Exchange pictures between main screen and sub screen. | |

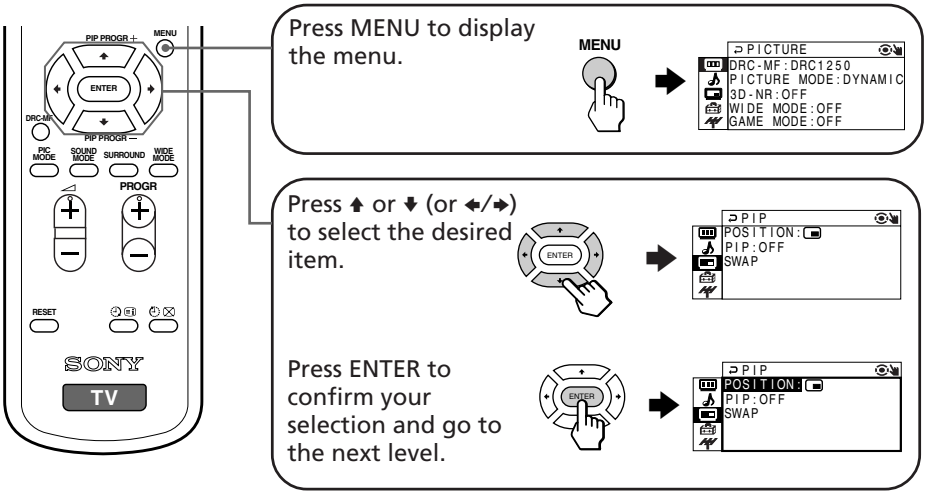
| Level 1 | Level 2 | Level 3/Function | Page |
|---|---|---|---|
| "SETUP" | "LANGUAGE" | Change the menu language:<br>"ENGLISH" → "中文"(Chinese) →<br>"عربي"(Arabic) → "ไทย"(Thai) | 26 |
| | "PIC ROTATION" | Adjust the picture position. | |
| | "ECO MODE" | Reduce power consumption of your TV. | |
| | "PROGRAM SETUP" | Adjust each program number settings. | |
| | "COLOR SYS" | Select the color system:<br>"AUTO" →" PAL" → "SECAM" → "NTSC3.58" → "NTSC4.43" | |
| "CH PRESET" | "AUTO PROGRAM" | Preset channels automatically. | 28 |
| | "MANUAL PROGRAM" | Preset channels manually. | |
| | "TV SYS" | Select the TV system:<br>"B/G" → "I" → "D/K" → "M" | |

* The BBE is manufactured by Sony Corporation under license from BBE Sound, Inc. It is covered by U.S. Patent No. 4,638,258 and No. 4,482,866. The word "BBE" and the BBE symbol are the trademarks of BBE Sound, Inc.

continue

*continued*

## How to use the menu



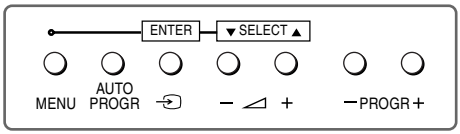

## Other menu operations

| To | Press |
|---|---|
| Adjust the setting value | ▲, ▼, ◄ or ►. |
| Move to the next/previous menu level | ◄ or ►. |
| Cancel the menu | MENU. |

**Tips**

- If you want to exit from Menu level 2 to Menu level 1, press ▲ or ▼ until the return icon ( ⮌ ) is highlighted, then press ENTER.
- Some of the menu items can be operated directly using the remote buttons.
- The MENU, ENTER, and SELECT ▼/▲ buttons on the TV can also be used for the operations above.

**Front of TV**

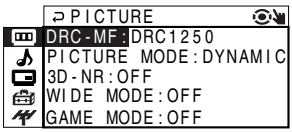


# ■ Changing the “PICTURE” setting

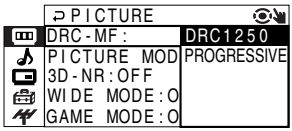
The “PICTURE” menu allows you to adjust the picture settings.

**1** Press MENU.

**2** Make sure the “PICTURE” icon ( ) is selected, then press ENTER.




**3** Press ↑ or ↓ to select the desired item (e.g., “DRC-MF”), then press ENTER.




| Select | To |
|---|---|
| “DRC-MF” | choose either “DRC1250” or “PROGRESSIVE” (see page 12). |
| “PICTURE MODE” | choose either “DYNAMIC”, “STANDARD”, “HI-FINE”, “PERSONAL”*, or “ADJUST” (see page 11). |
| “3D-NR” | adjust picture signal automatically to reduce noise.<br>Press ↑ or ↓ to select “ON”, then press ENTER.<br>To cancel, select “OFF”, then press ENTER. |
| “WIDE MODE” | choose either “ON” or “OFF” (see page 12). |
| “GAME MODE” | adjust the picture setting that is suitable to view video games.<br>Press ↑ or ↓ to select “ON”, then press ENTER.<br>To cancel, select “OFF”, then press ENTER. |

* When the “PERSONAL” mode is selected, you can receive the last adjusted picture settings from the “ADJUST” option (see page 22).

**Notes**

- “GAME MODE” is available only when receiving signals through (video input), (S video input), or (component video input).
- The DRC-MF mode is not selectable when GAME MODE is turned on.

**continue**

*continued*

## Adjusting the "ADJUST" items under "PICTURE MODE"

**1** Press ↑ or ↓ to select the desired item (e.g.,"COLOR"), then press ENTER.

**2** Adjust the value according to the following table, then press ENTER.

| For | Press ↓ or ← to | Press ↑ or → to |
|---|---|---|
| "PICTURE" | decrease picture contrast. | increase picture contrast. |
| "COLOR" | decrease color intensity. | increase color intensity. |
| "BRIGHT" | darken the picture. | brighten the picture. |
| "HUE" | increase red picture tones. | increase green picture tones. |
| "SHARP" | soften the picture. | sharpen the picture. |

**Notes**

- "HUE" can be adjusted for the NTSC color system only.
- Reducing sharpness ("SHARP") can also reduce picture noise.

**3** Repeat the above steps to adjust other items.

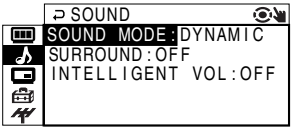
The adjusted settings will be received when you select "PERSONAL".

# ■ Changing the “SOUND” setting

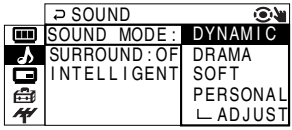
The “SOUND” menu allows you to adjust the sound settings.

**1** Press MENU.

**2** Press ↑ or ↓ to select the “SOUND” icon (♪), then press ENTER.




**3** Press ↑ or ↓ to select the desired item (e.g., “SOUND MODE”), then press ENTER.




| Select | To |
|---|---|
| “SOUND MODE” | choose either “DYNAMIC”, “DRAMA”, “SOFT”, “PERSONAL”*, or “ADJUST” (see page 11). |
| “SURROUND” | choose either “TruSurround”, “SIMULATED” or “OFF” (see page 14). |
| “INTELLIGENT VOL” | adjust the volume of all program numbers and video inputs automatically.<br>Press ↑ or ↓ to select “ON”, then press ENTER.<br>To cancel, select “OFF”, then press ENTER. |

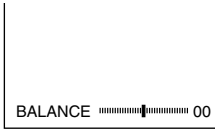
* When the “PERSONAL” mode is selected, you can receive the last adjusted sound settings from the “ADJUST” option (see page 24).

continue

*continued*

## Adjusting the "ADJUST" items under "SOUND MODE"

**1** Press ↑ or ↓ to select the desired item (e.g., "BALANCE"), then press ENTER.




**2** Adjust the value according to the following table, then press ENTER .

| For | Press ↓ or ← to | Press ↑ or → to |
|---|---|---|
| "BASS" | decrease the bass. | increase the bass. |
| "TREBLE" | decrease the treble. | increase the treble. |
| "BALANCE" | increase the left speaker's volume. | increase the right speaker's volume. |
| "BBE" | select "HIGH" for higher enhancement of sound clarity;<br>select "LOW" for lower enhancement of sound clarity;<br>select "OFF" to cancel BBE sound. | |

**3** Repeat the above steps to adjust other items.

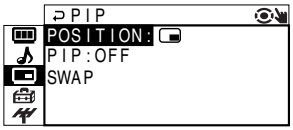
The adjusted settings will be received when you select "PERSONAL".

# ■ Changing the Picture-in-Picture ("PIP") setting

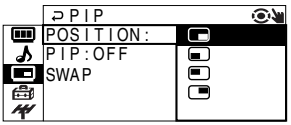
The "PIP" menu allows you to display a sub screen, change the sub screen position and exchange pictures between the main and sub screens.

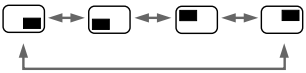
**1** Press MENU.

**2** Press ↑ or ↓ to select the "PIP" icon (), then press ENTER.




**3** Press ↑ or ↓ to select the desired item (e.g., "POSITION"), then press ENTER.



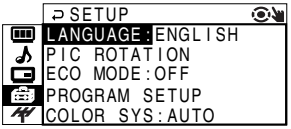

| Select | To |
|---|---|
| "POSITION" | change the position of the sub screen.<br>Press ↑ or ↓ to select the desired position, then press ENTER .<br>  |
| "PIP" | display a sub screen.<br>Press ↑ or ↓ to select "ON", then press ENTER .<br>To cancel, press  or select "OFF", then press ENTER . |
| "SWAP" | exchange pictures between the main screen and sub screen. |

# ■ Changing the “SETUP” setting

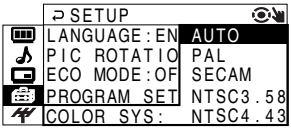
The “SETUP” menu allows you to change the menu language, adjust the picture position, reduce your TV power consumption, set up your program numbers and select the color system.

**1** Press MENU.

**2** Press ↑ or ↓ to select the “SETUP” icon (), then press ENTER.




**3** Press ↑ or ↓ to select the desired item (e.g., “COLOR SYS”), then press ENTER.

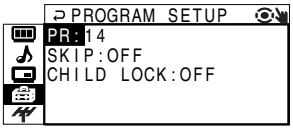



| Select | To |
|---|---|
| “LANGUAGE” | change the menu language.<br>Press ↑ or ↓ to select either “ENGLISH”, “中文” (Chinese), “ عربي ” (Arabic), or “ ไทย ” (Thai) then press ENTER.<br>The selected menu language appears. |
| “PIC ROTATION” | adjust the picture position when it is not aligned with the TV screen.<br>Press ↑ , → , ↓ or ← to adjust the picture position, then press ENTER.<br> |
| “ECO MODE” | reduce power consumption of your TV to save energy.<br>Press ↑ or ↓ to select “ON”, then press ENTER.<br>To cancel, select “OFF”, then press ENTER.<br>When you press  or turn on the TV, ECO MODE ( ) symbol will appear on the screen for a while. |
| “PROGRAM SETUP” | adjust each channel settings (see **Adjusting each program number settings (“PROGRAM SETUP”)** on page 27). |
| “COLOR SYS” | Select the color system. Normally, set this to “AUTO”. |

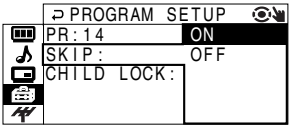
## Adjusting each program number settings (“PROGRAM SETUP”)

**1** Select “PROGRAM SETUP” from the “SETUP” menu.

**2** Select “PR” and press ENTER. Press ↑ or ↓ to select the desired program number you want to adjust, then press ENTER.




**3** Press ↑ or ↓ to select the desired item (e.g., “SKIP”), then press ENTER.




| Select | To |
|---|---|
| “PR” | select the desired program number. |
| “SKIP” | skip unwanted or unused program number.<br>Press ↑ or ↓ to select “ON”, then press ENTER.<br>To cancel, select “OFF”, then press ENTER. |
| “CHILD LOCK” | prevent children from watching this selected program number.<br>Press ↑ or ↓ to select “ON”, then press ENTER.<br>The lock symbol ( 🔒 ) appears on the screen.<br>To cancel, select “OFF”, then press ENTER<br>If you preset a locked program number, that program number will be unlocked automatically. |

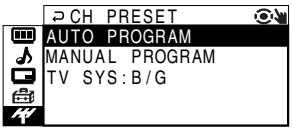
**4** To continue adjusting other program numbers, press ↑ or ↓ to select “PR”, then repeat step 2 and 3.

# ■ Changing the Channel Preset ("CH PRESET") setting

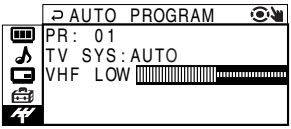
The "CH PRESET" menu allows you to preset channels automatically, manually preset channels and select the TV system.

**1** Press MENU.

**2** Press ↑ or ↓ to select the "CH PRESET" icon (), then press ENTER.




**3** Press ↑ or ↓ to select the desired item (e.g., "AUTO PROGRAM"), then press ENTER.

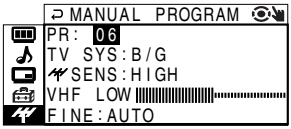



| Select | To |
|---|---|
| "AUTO PROGRAM" | preset channels automatically. |
| "MANUAL PROGRAM" | manually preset desired channels and channels that cannot be preset automatically (see **Presetting channels manually** on page 29). |
| "TV SYS" | select the TV system.<br><br>Press ↑ or ↓ to select either "B/G", "I", "D/K" or "M", then press ENTER. |

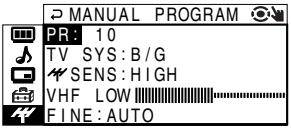
## Presetting channels manually

**1** After selecting "MANUAL PROGRAM", select the program number to which you want to preset a channel.

(1) Make sure "PR" is selected, then press ENTER.




(2) Press ↑ or ↓ until the program number you want to preset (e.g., program number "10") appears on the menu, then press ENTER.

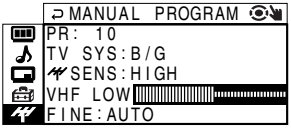



**Tip**

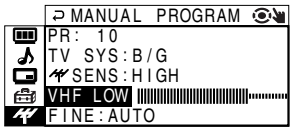
- You can also select the program number with the PROGR +/– or number buttons.

**2** Select the desired channel.

(1) Press ↑ or ↓ to select either "VHF LOW", "VHF HIGH", or "UHF", then press ENTER.

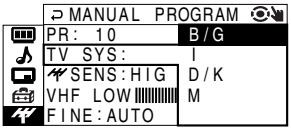



(2) Press ↑ or ↓ until the desired channel's broadcast appears on the TV screen, then press ENTER.

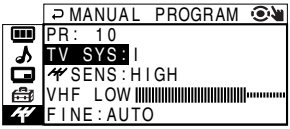



**3** If the sound of the desired channel is abnormal, select the appropriate TV system.

(1) Press ↑ or ↓ to select "TV SYS", then press ENTER.




(2) Press ↑ or ↓ until the sound becomes normal, then press ENTER.

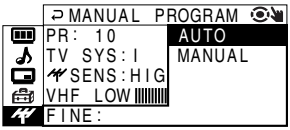



continue

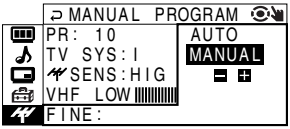
*continued*

**4** If you are not satisfied with the picture and sound quality, you may be able to improve them by using the "FINE" tuning feature.

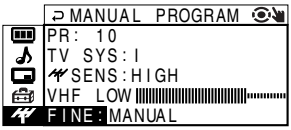
(1) Press ↑ or ↓ to select "FINE", then press ENTER.




(2) Press ↑ or ↓ to select "MANUAL", then press ENTER.

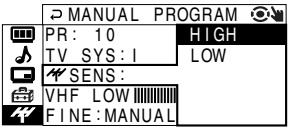



(3) Press ↑, ↓, ← or → until the picture and sound quality are optimal, then press ENTER.
The + or – icon on the menu flashes while tuning.

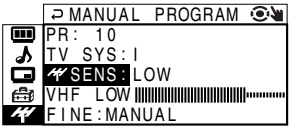



**5** If the TV signal is too strong and the picture is distorted, you can adjust the TV reception sensitivity.

(1) Press ↑ or ↓ to select "SENS", then press ENTER.




(2) Press ↑ or ↓ to select "LOW", then press ENTER.

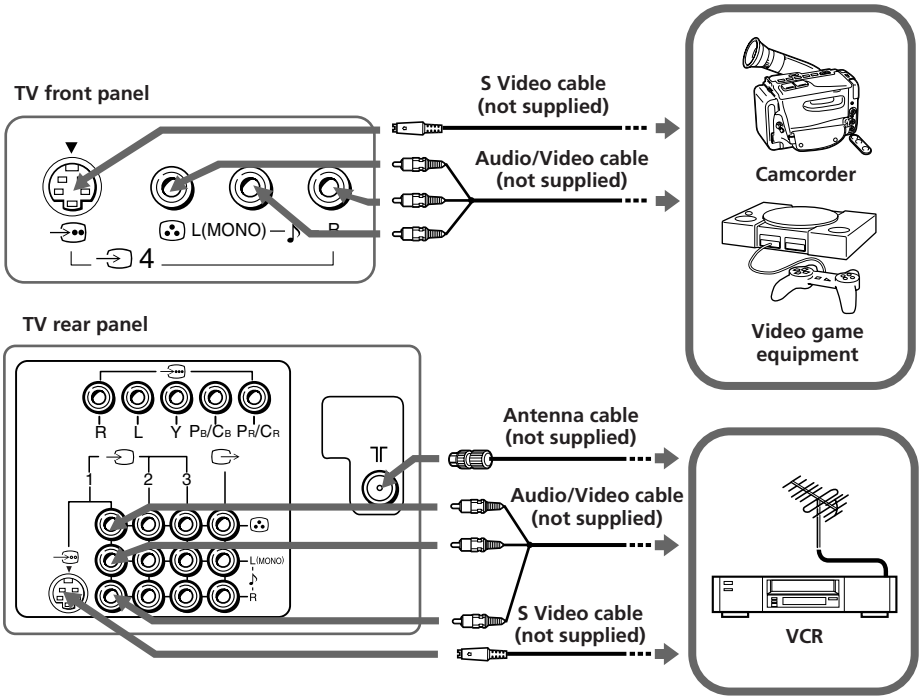



**Note**

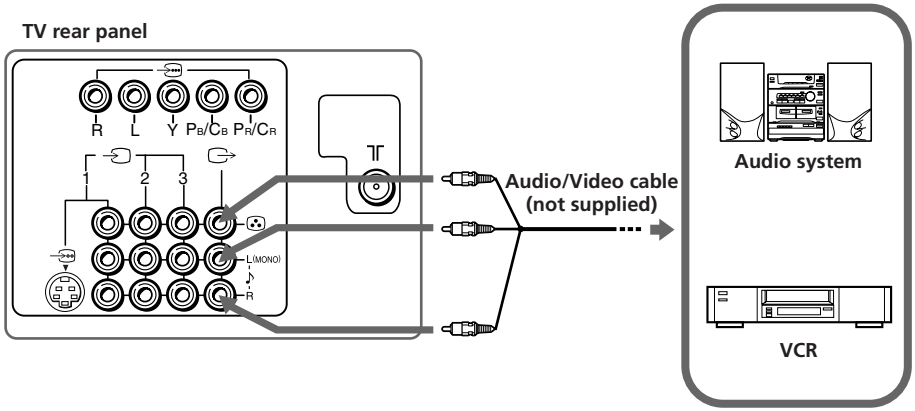
- If you connect a VCR to ⅂ (antenna input), preset the signal output from the VCR to the program number 0 on the TV.

# ■ Connecting optional components

## Connecting to the video input terminal ( )




## Connecting to the monitor output terminal ( )




continue

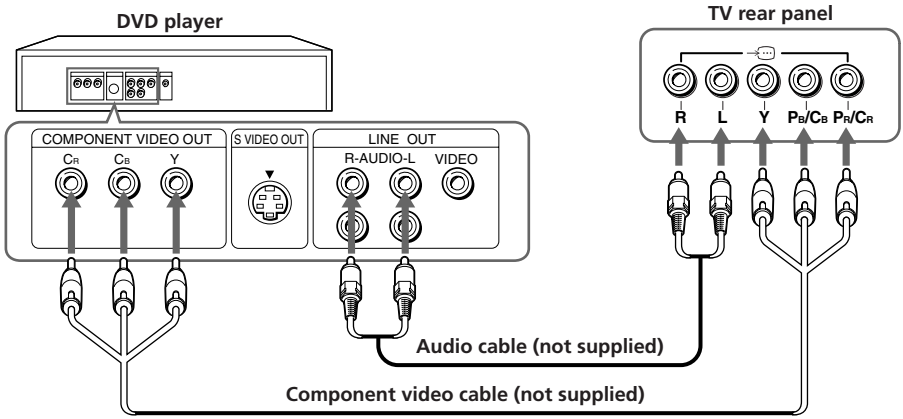
*continued*

## Connecting a DVD player to the component video input terminal ( )

1 Using an audio cable, connect R and L under (component video input) on your TV to the LINE OUT, AUDIO R and L output connectors on your DVD player.

2 Using a component video cable, connect Y, $P_B/C_B$, and $P_R/C_R$ under (component video input) on your TV to the COMPONENT VIDEO OUT Y, $C_B$, and $C_R$ output connectors on your DVD player.

3 Press DVD on the remote to watch the (component video input) and "DVD" will appear on your screen.




**Notes**

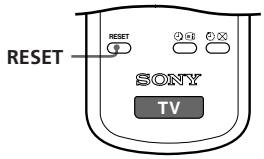
- Some DVD player terminals may be labeled differently:

| Connect | To (on the DVD player) |
|---|---|
| Y (green) | Y |
| $P_B/C_B$ (blue) | $C_B$, $P_B$, $C_b$ or B-Y |
| $P_R/C_R$ (red) | $C_R$, $P_R$, $C_r$ or R-Y |

- When both (S video) and (video) for 1 or 4 are connected at the same time, (S video) is automatically selected. To view (video), disconnect the S video cable.
- If you select "DVD" on your TV screen, the signal from the (monitor output) will not be output properly. This does not indicate a malfunction.
- When receiving a progressive signal through the (component video input), "PIP" is not available, and "DRC-MF" and "GAME MODE" are not selectable.

# ■ Troubleshooting

If you have any problem while viewing your TV, you can either use the Reset function or check the Troubleshooting guide below. If the problem persists, contact your Sony dealer.

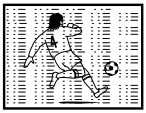



## Reset function

Press the RESET button on your remote control. Your TV will go blank for about half a second then the picture will reappear with "RESET" displayed on your TV screen for about 10 seconds.

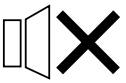
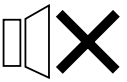
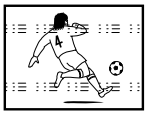
Pressing RESET will set your TV to the factory setting, but certain problems may be solved.

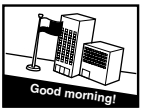
## Troubleshooting guide

| Symptom | Possible cause | Solutions | Page |
|---|---|---|---|
| **Snowy picture**  **Noisy sound** | • The connection is loose or the cable is damaged. | • Check the antenna cable and connection on the TV, VCR and at the wall. | 31 |
| | • The antenna setup is inappropriate. | • Check the antenna setup. Contact a Sony dealer for advice. | – |
| | • Channel presetting is inappropriate or incomplete. | • Display the "CH PRESET" menu and select "MANUAL PROGRAM" to preset the channel again. | 29 |
| | • Signal transmission is low. | • Try using a booster. | – |
| **Distorted picture** **Noisy sound** | • Broadcast signals are too strong. | • Display the "CH PRESET" menu and select "MANUAL PROGRAM". Then, select "SENS: LOW". | 30 |
| | | • Turn off or disconnect the booster if it is in use. | – |
| **Good picture** **Noisy sound** | • The TV system setting is inappropriate. | • Display the "CH PRESET" menu and select the appropriate TV system ("TV SYS"). | 29 |
| | • PIP sound is selected when PIP is displayed. | • Press SOUND or . | 13 |

continue

*continued*

| Symptom | Possible cause | Solutions | Page |
|---|---|---|---|
| **No picture**<br> <br>**No sound**<br>  | • The power cord, antenna or VCR is not connected. | • Check the power cord, antenna and VCR connections. | 31 |
| | • The TV is not turned on. | • Press I/⏻ (power).<br>• Press ⏻ (main power) on the TV to turn off the TV for about five seconds, then turn it on again. | 9<br>8 |
| **Good picture**<br> <br>**No sound**<br>  | • The volume level is too low. | • Press + to increase the volume level. | 9 |
| | • The sound is muted.<br>• PIP sound is selected when PIP is displayed. | • Press 🔇 to cancel the muting.<br>• Press SOUND or ◔. | 9<br>13 |
| **Dotted lines or stripes**<br>  | • There is local interference from cars, neon signs, hair dryers, power generators, etc. | • Do not use a hair dryer or other equipment near the TV.<br>• Check the antenna setup. Contact a Sony dealer for advice. | –<br>– |
| **Double images or "ghosts"**<br> | • Broadcast signals are reflected by nearby mountains or buildings. | • Use a highly directional antenna.<br>• Use the fine tuning ("FINE") function. | –<br>30 |
| | • The antenna setup is inappropriate. | • Check the antenna setup. Contact a Sony dealer for advice. | – |
| | • Use of a booster is inappropriate. | • Turn off or disconnect the booster if it is in use. | – |
| **No color**<br> | • The color level setting is too low. | • Display the "PICTURE" menu and select "ADJUST" of "PICTURE MODE", then adjust the "COLOR" level. | 22 |
| | • The color system setting is inappropriate. | • Display the "SETUP" menu and check the color system ("COLOR SYS") setting (usually set this to "AUTO"). | 26 |
| | • The antenna setup is inappropriate. | • Check the antenna setup. Contact a Sony dealer for advice. | – |

| Symptom | Possible cause | Solutions | Page |
|---|---|---|---|
| **Picture slant**<br>  | • The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV. | • Keep external speakers or other electrical equipment away from the TV.<br>• Display the "SETUP" menu and adjust "PIC ROTATION" so that the picture position is optimal. | –<br>26 |
| **Abnormal color patches**<br> | • The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV. | • Keep external speakers or other equipment away from the TV. Do not move the TV while the TV is turned on. Press ⏻ (main power) on the TV to turn off the TV for about 15 minutes, then turn it on again to demagnetize the TV. | – |
| **TV cannot receive stereo broadcast sound.** | • The stereo reception setting is inappropriate. | • Press A/B until "AUTO" appears on the screen. | 16 |
| **or** | • The connection is loose or the cable is damaged. | • Check the antenna cable and connection on the TV, VCR and on the wall. | 31 |
| **Stereo broadcast sound switches on and off or is distorted.** | • The antenna setup is inappropriate. | • Check the antenna setup. Contact a Sony dealer for advice. | – |
| **"100" appears at the top of the screen and there is no Teletext display.** | • The channel carries no Teletext broadcast. | — | 17 |
| **Teletext display is incomplete (snowy picture or double images).** | • Connection is loose or the cable is damaged. | • Check the antenna cable and connection on the TV, VCR, and at the wall. | 31 |
| | • The antenna direction is inappropriate. | • Adjust the antenna direction. Contact a Sony dealer for advice. | – |
| | • Signal transmission is too low. | • Try using a booster.<br>• Use the fine tuning ("FINE") function. | –<br>30 |

**continue**

*continued*

| Symptom | Possible cause | Solutions | Page |
|---|---|---|---|
| **The ⏻ (standby) indicator on your TV flashes red several times after every three seconds.** | • Your TV's self-diagnosis function indicates the possible problems. | • Count the number of times the ⏻ (standby) indicator flashes. Press ⏻ (main power) to turn off your TV. Contact your nearest Sony service center. | – |
| **Cannot play shooting games.** | • Some shooting games which involve pointing a light beam at the TV screen with an electronic gun or rifle cannot be used with your TV. For details, see the instruction manual supplied with the video game software. | — | – |
| **TV cabinet creaks.** | • Changes in room temperature sometimes make the TV cabinet expand or contract, causing a noise. This does not indicate a malfunction. | — | – |
| **A small "boom" sound is heard when the TV is turned on.** | • The TV's demagnetizing function is working. This does not indicate a malfunction. | — | – |

# ■ Specifications

| | KV-DR34M69 | KV-DR29M69 | Note |
|---|---|---|---|
| **Power requirements** | 110-240 V AC, 50/60 Hz | | |
| **Power consumption (W)** | Indicated on the rear of the TV | | |
| **Television system** | B/G, I, D/K, M | | |
| **Color system** | PAL, PAL 60, SECAM, NTSC3.58, NTSC4.43 | | |
| **Stereo/Bilingual system** | NICAM Stereo/Bilingual B/G, I;<br>A2 Stereo/Bilingual B/G | | |
| **Teletext language** | English, Arabic, French | | |
| **Channel coverage**<br>**B/G** | VHF : E2 to E12<br>UHF : E21 to E69<br>CATV : S01 to S03, S1 to S41 | | |
| **I** | UHF : B21 to B68<br>CATV : S01 to S03, S1 to S41 | | |
| **D/K** | VHF : C1 to C12, R1 to R12<br>UHF : C13 to C57, R21 to R60<br>CATV : S01 to S03, S1 to S41, Z1 to Z39 | | |
| **M** | VHF : A2 to A13<br>UHF : A14 to A79<br>CATV : A-8 to A-2, A to W+4, W+6 to W+84 | | |
| **(Antenna)** | 75-ohm external terminal | | |
| **Audio output (Speaker)** | 6W + 6W | | |
| **3D WOOFER** | 15W | | |
| **Number of terminal** | | | |
| **(Video)** | Input: 4 Output: 1 | Phono jacks; 1 Vp-p, 75 ohms | |
| **(Audio)** | Input: 4 Output: 1 | Phono jacks; 500 mVrms | |
| **(S Video)** | Input: 2 | Y: 1 Vp-p, 75 ohms, unbalanced, sync negative<br>C: 0.286 Vp-p, 75 ohms | |
| **(Component Video)** | Input: 1 | Phono jacks;<br>Y: 1 Vp-p, 75 ohms, sync negative<br>$P_B/C_B$: 0.7 Vp-p, 75 ohms<br>$P_R/C_R$ 0.7 Vp-p, 75 ohms<br>Audio: 500 mVrms | |
| **(Headphone)** | Output: 1 | Stereo minijack | |
| **Picture tube** | 34 in. | 29 in. | |
| **Tube size (cm)** | 86 | 72 | Measured diagonally |
| **Screen size (cm)** | 80 | 68 | Measured diagonally |
| **Dimensions (w/h/d, mm)** | 894 × 690 × 569 | 786 × 596 × 514 | |
| **Mass (kg)** | 85 | 57 | |

Design and specifications are subject to change without notice.

http://www.sony.net/

Sony Corporation